DOCUMENT RESUME

ED 142 334 RC 009 966

AUTHOR Gaumnitz, W. H.; Cook, Katherine M.
TITLE Education in the Southern Mountains. Bulletin 1937, No. 26.
INSTITUTION Office of Education (DHEW), Washington, D.C.
PUB DATE 38
NOTE 57p.; Not available in hard copy due to small print size of original document

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Age Grade Placement; Average Daily Attendance; Caucasian Students; Community Support; Comparative Analysis; Consolidated Schools; Curriculum; Distance; Educational Finance; Educational Opportunities; Educational Problems; *Educational Quality; *Efficiency; Elementary Secondary Education; Enrollment; Expenditures; Human Resources; Illiteracy; Low Income Counties; Private Schools; Public Schools; *Rural Education; School Conditions; *School Location; School Support; Socioeconomic Influences; *Southern States; State Aid; Student Transportation; Teacher Characteristics; Teacher Qualifications
IDENTIFIERS *Appalachia; *Georgia; Kentucky; North Carolina; Tennessee; Virginia; West Virginia

ABSTRACT

Examined were the educational conditions and efficiency of the school systems during the 1929-30 school year in both the mountainous and nonmountainous counties of Georgia, Kentucky, North Carolina, Tennessee, Virginia, and West Virginia. Information was obtained for five counties in each State which were regarded as the most mountainous and five counties in the nonmountainous area of each State, for all of the counties of each State commonly regarded as part of the Southern Appalachian area, and for each State as a whole. A comparison of conditions among area types indicated the extent to which mountain conditions affected educational developments. Obtained from published reports and files of the six State departments of education and directly from the schools, data covered the schools' availability and accessibility; grade levels; length of school term and days attended; illiteracy; pupils' age-grade status; teacher qualifications; annual expenditures; value of buildings, grounds, and school equipment; estimated taxable wealth available for school support; State aid; human resources as a factor in school support; types of nonpublic schools and their curricular offerings; and nonschool educational activities. Findings included: of the children 16-20 years old in the mountain sections, approximately 2/3 did not attend school; in at least 3 of the States, the disadvantage of short terms in the most mountainous counties was aggravated by irregular attendance; and enrollment ratios in the first year of high school to those in the third grade were higher in the nonmountain counties. (NQ)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED142334

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

BEST COPY AVAILABLE

Education in the Southern Mountains

RC009766

UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF EDUCATION
BULLETIN, 1937, NO. 26

United States Department of the Interior, *Harold L. Ickes, Secretary*
Office of Education • *J. W. Studebaker, Commissioner*

EDUCATION IN THE SOUTHERN MOUNTAINS

Prepared by
W. H. GAUMNITZ
Senior Specialist in Rural Education Problems

Revised and edited by
Mrs. KATHERINE M. COOK
Chief, Division of Special Problems

RECEIVED
MAY 3 1971
NMSU
E.R.I.C.

BULLETIN 1937, NO. 26

BEST COPY AVAILABLE

UNITED STATES GOVERNMENT PRINTING OFFICE • WASHINGTON, 1938
For sale by the Superintendent of Documents, Washington, D. C. • Price 15 cents

Out of Print

CONTENTS

	Page
FOREWORD	VII
CHAPTER I. INTRODUCTION	1
The Southern Highlands—A favorite theme of news and fiction	1
Extent and character of the Southern Highlands	3
Ability to support schools	4
Social and economic conditions	6
CHAPTER II. SCHOOL CONDITIONS IN THE SOUTHERN APPALACHIANS	9
Plan of the study	9
The educational problem in terms of numbers	12
Availability and accessibility of schools—A general view	14
Proportion of children attending school	14
Elementary and secondary school enrollments	15
Area per school in square miles and transportation expenditures	17
Some measures of the amount and quality of schooling	19
Grade levels attained	19
Length of school term and days attended	21
Illiteracy	21
Age-grade status of pupils	22
Qualifications of teachers	24
Financial measures of educational opportunities	27
Average annual expenditures	27
Value of buildings, grounds, and school equipment	29
Estimated taxable wealth available for the support of schools	32
Financial aid for schools from State sources	32
Human resources as a factor in school support	34
Availability of schools in selected mountain counties	36
Plan and purpose of this phase of the study	36
Location and distribution of schools	38
Distances children live from school	40
Relationship of school attendance to availability	45
CHAPTER III. DENOMINATIONAL AND INDEPENDENT NONPUBLIC SCHOOLS	47
Introductory statement	47
Types of nonpublic schools	47
Curricular offerings	49
Nonschool educational activities	50

FIGURES

I. Location and expanse of the Southern Appalachian Mountains and the counties selected for special study	3
II. Location and accessibility of schools, 1932, Lumpkin County, Ga	37
III. Wolfe County, Ky	39
IV. Macon County, N. C	40
V. Monroe County, Tenn	41
VI. Mercer County, W. Va	43

TABLES

Page

1. Average farm income of mountain counties compared to total counties 5
2. Square miles in the various groups of counties and in those sections of the Tennessee Valley Authority included in this study 12
3. Population by age groups and by the various groups of counties 13
4. Children of elementary and secondary school ages per square mile, 1930 13
5. Percentages of white persons of various age groups attending any type of school during the period from April 1929 to April 1930 15
6. Percent of entire public-school enrollment found in elementary and in secondary grades 17
7. Average number of square miles per public school 18
8. Average expenditures for pupil transportation per public school 18
9. Ratios of pupils enrolled in sixth grade of the public elementary school, the first year of high school, and the last year of high school to each 100 pupils in the third grade, 1930 20
10. Term length and number of days attended per pupil enrolled in public elementary schools in 1930 21
11. Percentages illiterate by age groups 22
12. Percentage of children above normal age for grade in which enrolled (public schools) 23
13. Number of years 10-year-old children and 14-year-old children are retarded 24
14. Percent of teaching staff having high-school education or less and percent having 2 or more years of college education 25
15. Percent of teachers new to the profession and those having 3 or more years of experience, 1930 27
16. Average annual salaries paid to teachers and supervisors 27
17. Average amounts spent for public elementary and secondary education in 1930 by types of areas 28
18. Average value of buildings and grounds and of school equipment per teacher employed and per child enrolled 29
19. Average amount of wealth estimated to be available for taxation for schools for 1930 by types of areas 33
20. Financial aid per teacher employed and per child 7–20 years old contributed from State sources for the support of public education, 1930 35
21. Number of persons 21 years of age and above per child 7–15 years of age and per adolescent 16–20 years of age, 1930 35
22. Number and percent of nontransported children living various distances from the schools they attend given by age groups for five of the most mountainous counties 42
23. Distance between home and school of out-of-school children. Number and percent of children 44
24. Number and percent of nontransported children attending school the number of days indicated during 1 year 45
25. Children of school age not attending school classified according to age groups and highest grade levels reached when last in school 46

FOREWORD

THE MOUNTAIN AREA of the Southern States has recently aroused unwonted attention on the part of the people of the United States. That economic conditions were unsatisfactory; that social services, including education, were wholly inadequate; and that these conditions, with the isolation prevalent in mountain sections, combined to set the people of these areas apart from normal farming communities, has long been a matter of common knowledge.

Definite undertakings looking toward rehabilitation on a region-wide scale were not, however, until recently, seriously contemplated. The Federal Government, in the establishment and maintenance of the Tennessee Valley Authority, has now entered the region with plans for reconstruction of at least a large part of the area on an extensive scale. Interest in education, as perhaps the most important of the social services so long inadequate, motivated this study of educational conditions in the area. It is believed it will serve a useful purpose in furthering plans for continuing the improvements in social conditions, now so auspiciously begun, through providing authentic information not hitherto available.

BESS GOODYKOONTZ,
Assistant Commissioner of Education.

EDUCATION IN THE SOUTHERN MOUNTAINS

CHAPTER I

INTRODUCTION

The Southern Highlands—A Favorite Theme of News and Fiction

According to an author and student of mountain life, there is no section of our country of which there is "so much known that is not true" as of the Southern Appalachian Mountain regions. Much of what is "known" about the southern hill country, its inhabitants, and their education, is derived from fiction and colorful newspaper and magazine articles. In order to captivate the interests of the public or to arouse a desire to do something about prevalent conditions, writers dealing with such problems naturally portray the unusual and the extreme. The discovery in 1929, for example, of an isolated mountain community in which educational opportunities were still undeveloped suddenly became the subject of picturesque accounts spread far and wide by press and rostrum. Yet school conditions for the county as a whole of which this particular hill community was a part, were generally good. The people of the United States have drawn from such sources and episodes the general and often mistaken idea that the conditions portrayed in these unusual localities are typical of the southern mountains as a whole.

A mountain worker recently voiced his complaint of this mistaken attitude toward this area as follows:

> For many years the southern mountaineer has been the butt of much highbrow ridicule. He has been scandalously misrepresented and often shamefully maligned. There are two main reasons for this treatment. What the outside world has known about us in the past has been gained from reading books and magazine articles whose scenes are laid in our mountains. The writers of these books have painted the mountain people as being feudists and moonshiners; as ignorant people living in fearful squalor and degradation; as descendants of criminals in whose bloody footsteps they still follow; as ignoramuses who resent the least appearance of anything

modern. Mountain books, short stories, novels, pictures, plays, and collections of ballads galore have recently appeared—nearly all of which are of an unsympathetic nature. The authors of these productions chose to write about exceptional and isolated cases, or imaginary cases, and brand them, without warrant or excuse, as typical mountain conditions.[1]

Although fully recognizing the tendency of popular writers to depict the extreme and thus to overdraw the picture, it is, nevertheless, true that school conditions in the southern mountains constitute a difficult problem. Reliable accounts of the type quoted below, calling attention to the neglect and failure to bring educational opportunities worthy of the term to such communities, could be multiplied:

> Unattractive and uninviting though this bleak little school building may be, to the mountain folk it brings a contact with the outside. Within, the barrenness was somewhat dispelled by bright pictures adorning the walls. But even their cheerfulness could not conceal or counteract the meagerness of furnishings and equipment; no teacher's desk or chair, no shelf or drawer for books and supplies, five desks for some score of children, four rough benches (one serving as teacher's chair and desk), a blackboard limited to one wall, a map of the world (Mercator's projection), a defective stove, a water pail, and a wash basin.[2]

> * * * Those of us who are working in schools on the secondary level appreciate the reasons that have caused our boys and girls to be poorly prepared for the work of the standard high school. We know that in literally thousands of the one-room schools throughout the mountain counties the children do not have textbooks. In Kentucky alone 30 percent of the boys and girls in the rural schools last year were without textbooks; in many schools not more than 10 percent were provided with schoolbooks. In these same schools there are no supplementary readers, no charts, no maps, no material for educational seatwork. The blackboards are so slick one can scarcely make a mark with a piece of chalk, and pieces of old felt hats are still used for erasers. Under such conditions we find great soul hunger and little food with which to satisfy that hunger. It is perfectly apparent that boys and girls, whose educational opportunities have been such as these, have not had a fair start in life. Their retardation is easily understood. Those of us who work in these schools, those of us who have studied the educational problems of this section in comparison with those of other sections know that in the mountain counties boys and girls do not enjoy equal educational opportunities.[3]

---

[1] Southerland, E. J. The changing southern mountaineer. Virginia journal of education, September 1930.

[2] Hitch, Margaret. Life in the Blue Ridge Hollow. Journal of geography, 30: 309-323, November 1931.

[3] Baird, W. J. Education. Mountain life and work, vol. IX, no. 2, July 1933.

Extent and Character of the Southern Highlands

The area designated as the Southern Mountains is composed of a variety of communities. The region recognized in a recent social and economic survey of the Department of Agriculture [4] as the Southern Mountain area and considered in this bulletin, embraces

Figure 1.—Location and expanse of the Southern Appalachian Mountains and the counties selected for special study.

205 counties. It lies within six States—Georgia, Kentucky, North Carolina, Tennessee, Virginia, and West Virginia. (See fig. 1.) Smaller sections of Maryland, South Carolina, and Alabama are frequently classed as belonging to this general area but these units are not included in this study. The total area comprises 55,375,580 acres. It is larger by far than any of the six States of which the Southern Mountains are a part and is greater in area by 13,000,000

[4] Economic and social problems and conditions of the Southern Appalachians. Washington, U. S. Department of Agriculture, 1935. (Miscellaneous Publication No. 205.) pp. 1-2.

acres than all the New England States combined. Its greatest length is about 500 miles; its greatest width 200 miles. The total area has a population of nearly 5,000,000.

As a whole the region is sparsely populated. Low population density, as will be seen later, is one of the chief difficulties to be met in providing such social services as public education. While sparsity of population is characteristic of the area there are two cities, namely, Chattanooga and Knoxville in Tennessee, each with more than 100,000 population. Six other cities, namely, Clarksburg and Charleston in West Virginia, Roanoke in Virginia, Asheville in North Carolina, Johnson City in Tennessee, and Ashland in Kentucky, have populations ranging between 25,000 and 100,000. There are several other cities such as Charlottesville and Bristol in Virginia; Bluefield, Fairmont, and Morgantown in West Virginia; and Rome in Georgia, each of which has a population of more than 15,000. Moreover, there are within the area county seats and minor industrial centers with populations ranging between 2,500 and 15,000. In the urban centers the educational services and facilities are as a rule as well developed as in other urban communities of the Nation.

Ability to Support Schools

In many communities in the more sparsely settled mountainous sections, facilities for public education are inadequate or entirely lacking. In large parts of the area the farms are extremely small. In 1930 almost one-half of the farms in this highland region were less than 50 acres in area. Fully one-third were less than 20 acres. Their size, lack of fertility, hillside location, and eroded condition make for low incomes.

Data are available from a variety of sources showing the prevailing situation. The Department of Agriculture survey states:

> On more than 50 percent of the 383,870 farms, the farm value of all farm products sold, traded, or used by the farmer's family was under $600 per farm; on about 30 percent the value per farm was under $400. In about 18 percent of the minor civil divisions comprising the Southern Highlands the average value of the farm products traded or sold was under $200 and in about 3 percent it was under $100 per farm.[5]

The amount given represents the gross production of the farms studied. More than 40 percent of the farms in the region were classified as self-sufficing, meaning that the value of the products used directly by the farm family was equal to or greater than the value of all crops, livestock products, forest products, or other farm products sold or traded during the year. In other words, on two out of every

[5] Ibid, p. 41.

five farms all of the commodities produced were necessary to supply the immediate needs of the family, leaving no cash with which to purchase the "all else" [6] so essential to a good life. Moreover, the products available are so limited in variety, if not in quantity, as to afford subsistence farm families only a low standard of living.

Table 1 shows the average income of farmers of the mountain counties compared with that of all counties within the respective States. If certain mountain counties were separated from the group average for comparison, the value of production per farm would be even less. According to a study of a group of representative mountain families in Kentucky, "the total cash income * * * amounted to less than $45 per family * * * the average dwelling house was worth $110 and the entire capital, including land, buildings, livestock, tools, and other items of equipment was $551.[7]

TABLE 1.—*Average farm income*[1] *of mountain counties compared to total counties*

State	Net production[2] value per farm person 1929		Cash value of sales per farm person 1929	
	All counties	Mountain counties	All counties	Mountain counties
1	2	3	4	5
Georgia	$179	$142	$126	$93
Kentucky	200	115	116	54
North Carolina	183	111	131	63
Tennessee	190	138	112	70
Virginia	215	198	138	129
West Virginia	174	151	105	85

[1] Spillman, C. O. Some economic problems of mountain farmers. Mountain life and work, 9: 22-23, January 1934.

[2] Net production value equals value of everything produced minus feed produced for livestock.

The situation for one section of North Carolina has been summarized as follows: [8]

> In our immediate sections the average (annual) income of the small farmer is between $85 and $90. The farmer has, of course, his garden and his land from which he gets most of his living, but $90 does not offer much margin for taxes, clothes, books, education, seeds, fertilizer, etc. For a single trip from the county seat we pay the doctor $7. * * * The topography and history of the mountain country explain why over large areas our elementary schools have been very poor. While they are improving greatly,

[6] Gross, John O. All else. Mountain life and work, vol. 10, July 1934.

[7] Nicholls, W. D. Families on submarginal land. Mountain life and work, vol. 10, April 1934.

[8] Campbell, Mrs. Olive D. Adjustment to rural industrial change with special reference to mountain areas. Proceedings of the National Education Association, 67: 484-88, 1929.

they are still very inadequate. As a result we have a large population which, if not actually illiterate, is very limited in education. This population presents a special educational problem of which we hear much, and which must always be considered, but which cannot be considered apart from the economic and social phases of poverty * * *.

Evidence presented later in this study indicates that the taxable wealth on which schools draw in large part for support is less adequate in mountain than in the nonmountain areas (see p. 32) of the same States. A number of studies comparing State tax resources indicate that the Southern States[8] which include the mountain area are generally less able economically to support schools than those in certain other sections of the country. Since both local and State sources of income are inadequate as compared with other areas, the mountain

Home on the road to Old Rag, Va.

section appears to have a double handicap from the point of view of school support.

Social and Economic Conditions

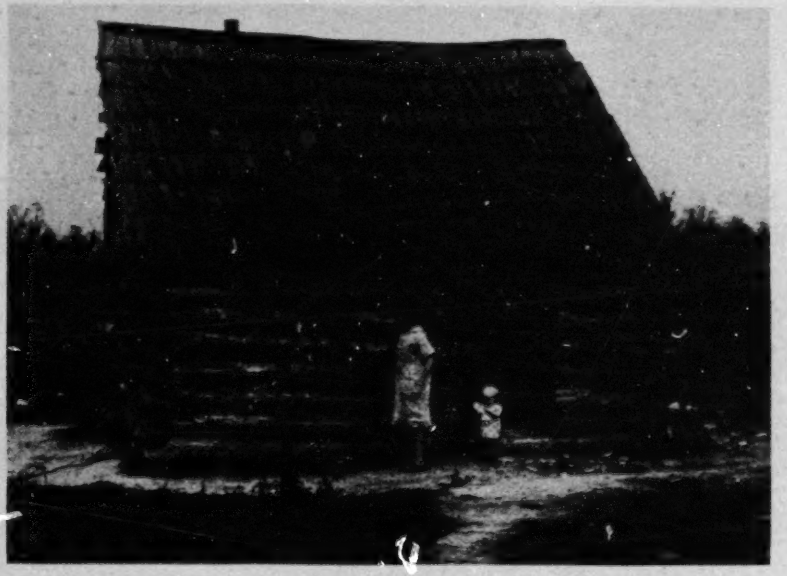
The causes of backward social and economic conditions in the southern mountain areas have been discussed widely by many authors and need not be considered at length here. Conditions have been rapidly changing during the last 25 years. Improved

[8] Financing public education, Washington, National Education Association, 1927. (Research Bulletin, vol. XV, No. 1.)

schools, public and private; roads; hospitals; telephone and telegraph lines; electric lighting; and modern home conveniences are among the influences now overcoming isolation and social backwardness.

The program and activities of the Tennessee Valley Authority [10] have recently given encouragement to the people of the southern mountains. Efforts are being made through its Division of Social and Economic Development to study the resources of the area, develop its potentialities, and plan a program of action. This program is designed to improve the general social and economic welfare of this section of the Nation, as well as to exclude from cultivation the portions undesirable for the maintenance of homes and community life. The effects of these changes upon education should be significant.

In an intensive study of 428 representative families living in the mountain areas of eastern Tennessee, eastern Kentucky, and western



Home of family of 10 which has been on relief for 18 months.

North Carolina, Prof. Lester R. Wheeler [11] gathered data showing changes during the past 25 years in the home, community, and economic life of the southern mountaineer. He concluded that during these years the average mountain family has decreased in size from

[10] Meyer, Walter E. The Tennessee Valley looks to the future. Journal of the National Education Association, 23: 233–48, December 1934.

[11] Wheeler, Lester R. A study of the remote mountain people of the Tennessee Valley. Journal of the Tennessee Academy of Science, 20: January 1935.

about 10 members to 8; that the average mountain home has changed from a "one-room and lean-to-structure" to a two-story, frame building of five rooms; that the very limited stock of home-made furnishings has been replaced by factory-made furniture, including a sewing machine, a victrola, and a clock; that in every 100 families the number of home owners has increased by 4, the number of renters has increased by 6, and the number of squatters has decreased by 10; in place of one cow per family which constituted the average possession in livestock in 1910, practically every family now has two cows, a hog or two, and several chickens; wagons and trucks have largely supplanted the wooden slip-drags and the horse and the automobile have to a large extent supplanted travel on foot. Where travel by train was practically unknown 25 years ago, 67 percent of the mountain people now report having ridden on a train. The influence of more and better schools is seen in the increase of the family library from the Bible and an almanac in 1910 to 32 volumes, a weekly or monthly magazine, a fountain pen and ink in 1935; improvements were also noted in such basic things as home sanitation, the place of women in society, and the general standards of living. The study summarizes the situation by pointing out that the social and economic status of the average mountain home of 25 years ago closely resembled the lower 10 percent of those found in that region today.

It appears probable, therefore, that the extreme conditions commonly depicted by the literature dealing with the southern mountains represent accurately only the lower 10 percent (according to the author just quoted) of the homes and communities of this region and not the average. However, this estimated percentage involves a large number of boys and girls for whom the presence or absence of an opportunity for an education is a matter of real importance. It is the purpose of this study to present data to show educational conditions both in the more backward mountain communities and in the southern mountain regions generally.

CHAPTER II

SCHOOL CONDITIONS IN THE SOUTHERN APPALACHIANS

PLAN OF THE STUDY

THIS CHAPTER presents the following information concerning educational conditions and efficiency of the school systems: (1) The average educational practices in the five counties of each State which are generally regarded the most mountainous and consequently present the greatest difficulties in the development of public education; (2) the average educational practices in five representative counties in the nonmountainous area of each State; (3) the average educational practices in all of the counties of each of the States commonly regarded as forming a part of the Southern Appalachian area; and (4) the average educational practices in each State as a whole. It is apparent that the total mountain region of each State contains all gradations of mountainousness and that the averages for the total mountain counties will include the data for the most mountainous counties. Also the averages for the States as wholes include both the most mountainous and the nonmountainous counties.

A comparison of conditions among type areas in each State will indicate the extent to which mountain conditions have retarded educational developments. The comparisons will, of course, not be as sharp nor will the differences be as great when the measures are reduced to averages for groups of counties as if data for each county were presented separately.

The statistics in this section were gathered in part from the published reports and files of the six State departments of education which exercise jurisdiction over the schools of the area. In some cases statistical adjustments in the data available were essential in order to secure comparability. In a few instances, additional data were gathered directly from the schools.

The data employed are for the most part for the school year 1929–30 and pre-date the period of the depression. However, other studies of educational changes indicate that the scaling down of such public services as education has been fairly proportional between mountain and nonmountain communities, the poorer school districts suffering somewhat greater reductions. The differences between the educational situations in 1929–30 and now are not, therefore, as great as one might

expect. Ordinarily school conditions do not vary greatly from year to year. The 1929-30 data have the advantage of being comparable to the data published by the United States Census Report, a source frequently drawn upon in this study. (The data deal with educational conditions among white persons unless otherwise indicated.)

Scope and Setting of Survey.—The names of the entire group of mountain counties as well as those of the counties selected to represent the most mountainous and the nonmountainous sections are as follows:

GEORGIA

Mountain counties				Nonmountain counties
Bartow	*Fannin	Murray	Walker	Fulton
*Catoosa	Floyd	Pickens	White	Laurens
Chatooga	Gilmer	Polk	Whitfield	Liberty
Cherokee	Gordon	Rabun		Putnam
Dade	Habersham	*Towns		Randolph
*Dawson	*Lumpkin	Union		

KENTUCKY

Bell	Harlan	Letcher	Powell	Barren
Boyd	*Jackson	McCreary	Pulaski	Bullett
Breathitt	Johnson	Magoffin	Rockcastle	Daviess
*Carter	Knott	Martin	Rowan	Franklin
Clay	Knox	Menifee	Wayne	Graves
Clinton	Laurel	Morgan	Whitley	
*Elliot	Lawrence	*Owsley	Wolfe	
Estill	Lee	Perry		
Floyd	*Leslie	Pike		

NORTH CAROLINA

Alexander	Cherokee	McDowell	Swain	Beaufort
*Alleghany	Clay	*Macon	Transylvania	Caswell
*Ashe	Cleveland	*Madison	*Watauga	Columbus
Avery	Graham	Mitchell	Wilkes	Moore
Buncombe	Haywood	Polk	Yancey	Wake
Burke	Henderson	Rutherford		
Caldwell	Jackson	Surry		

TENNESSEE

Anderson	Franklin	Loudon	Roane	Bedford
Bledsoe	Grainger	McMinn	*Scott	Davidson
Blount	Greene	Marion	Sequatchie	Hardin
Bradley	Grundy	Meigs	Sevier	Henry
Campbell	Hamblen	*Monroe	Sullivan	Lauderdale
Carter	Hamilton	*Morgan	Unicoi	
Claiborne	Hancock	Overton	Union	
Cocke	Hawkins	Pickett	Van Buren	
Coffee	Jefferson	Polk	Warren	
Cumberland	*Johnson	Putnam	Washington	
Fentress	Knox	Rhea	White	

*Indicates counties selected to represent the most mountainous sections of these States.

VIRGINIA

Mountain counties				Nonmountain counties
Albemarle	Craig	Loudoun	Russell	Chesterfield
Alleghany	Dickinson	Madison	Scott	Fairfax
Amherst	Fauquier	Montgomery	Shenandoah	Halifax
Augusta	Floyd	Nelson	Smyth	King William
Bath	*Franklin	Page	Tazewell	Southampton
Bedford	Frederick	*Patrick	Warren	
*Bland	*Giles	Pulaski	Washington	
Boutetourt	Grayson	Rappahannock	Wise	
*Buchanan	Greene	Roanoke	Wythe	
Carroll	Highland	Rockbridge		
Clarke	Lee	Rockingham		

WEST VIRGINIA

Barbour	Hardy	Mineral	*Randolph	Cabell
Berkeley	Harrison	Mingo	Summers	Jackson
Boone	Jefferson	Monongalia	Taylor	Ohio
Braxton	Kanawha	Monroe	Tucker	Ritchie
Clay	Lewis	Morgan	Upshur	Tyler
Fayette	Lincoln	Nicholas	Wayne	
Gilmer	Logan	*Pendleton	Webster	
*Grant	McDowell	Pocahontas	*Wyoming	
Greenbrier	Marion	Preston		
Hampshire	*Mercer	Raleigh		

*Indicates counties selected to represent the most mountainous sections of these States.

The counties constituting the total mountain area included in this study are marked out with a heavy broken line on a map of the southeastern quarter of the United States. (See fig. I.) On this map are shown, through distinctive hatchings, the location of the five counties selected to represent the most mountainous sections, as well as the five counties selected to represent the nonmountainous areas of each State. The former were selected from a group ranked by school officials from each State as areas which are most mountainous and in which mountain conditions definitely influenced educational development. The latter were selected at random, care being taken that one county in each State contained one of the larger urban centers and that all nonmountain sections of each State were represented.

The six States with which this study is concerned constitute an area of 253,617 square miles (see table 2), 85,356 of which are included in the area known as the Southern Highlands. About two-thirds of this area is in three of the States—West Virginia, Virginia, and Tennessee.

The area within the Tennessee Valley Authority is outlined in figure I. It includes 23,477 square miles, or 27.5 percent of the total Southern Highlands. More than three-fourths of the mountain section of Tennessee and about one-half of that of North Carolina are included under the Valley Authority.

TABLE 2.—*Square miles in the various groups of counties and in those sections of the Tennessee Valley Authority included in this study*

Type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia	Six States
1	2	3	4	5	6	7	8
5 most mountainous counties:							
Total	1,247	1,368	1,913	2,512	2,425	3,117	12,832
TVA	683	0	1,049	1,404	35	0	3,171
5 nonmountain counties:							
Total	2,315	2,021	3,638	2,689	2,566	1,542	14,771
TVA	0	73	0	1,462	0	0	1,535
Entire mountain counties:							
Total	6,749	12,132	10,870	17,225	19,389	18,991	85,356
TVA	1,532	0	5,426	13,307	3,112	0	23,477
Entire State:							
Total	58,725	40,181	48,740	41,687	40,262	24,022	253,617
TVA	1,532	1,041	5,426	22,302	3,112	0	33,413
Percent of total State in mountain area	11.4	30.1	22.3	41.3	48.1	79.0	33.6
Percent of mountain area in TVA	22.7	0.0	49.9	77.8	16.0	0.0	27.5
Percent of total State in TVA	2.6	2.6	11.1	53.5	7.7	0.0	13.2

THE EDUCATIONAL PROBLEM IN TERMS OF NUMBERS

The first aspect of education in the southern mountains to be examined here concerns the number of children of school age living within the area. The age groups as given in the table roughly correspond to the periods of elementary and secondary education. (See table 3.) In the 205 mountain counties of the six States, slightly more than a million children 7 to 15 years of age and somewhat fewer than half a million of those 16 to 20 years of age live. From the standpoint of potential school attendance, therefore, approximately a million and a half boys and girls are involved—nearly 40 percent of the children of the designated age groups in the six States. About half as many children of school age live in the most mountainous as in the nonmountain counties. The differences are particularly marked in Georgia and in Tennessee.

The data presented in table 3 show also the distribution of the youth by age groups in the mountainous and nonmountainous sections of these States. The proportion of children 16–20 years of age to the total group is considerably greater in the latter than in the former, the differences being greatest in Tennessee and least in Virginia. This indicates the tendency of older children to forsake the mountain communities to find homes and occupations elsewhere. The differential is not affected by persons attending schools away from home because the children were enumerated where they reside rather than where they attend school. The general tendency for children of the post-

elementary school ages to leave the mountain communities is more evident when the factor of sparsity is considered than when population data only are compared. (See table 4.) The natural sparsity of population in the mountain counties and the tendency of the children to leave home early together constitute one of the chief difficulties in making suitable school facilities available, particularly for secondary-school children. Of course it is possible that if better educational opportunities were accessible, the mountain child would not leave home so early.

TABLE 3.—*Population by age groups and by the various groups of counties* [1]

Ages by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia	Total
1	2	3	4	5	6	7	8
5 most mountainous counties:							
7–15	7,514	14,864	17,790	16,565	16,929	25,900	99,562
16–20	3,657	6,238	7,977	7,726	7,604	12,177	45,379
5 nonmountain counties:							
7–15	40,982	22,993	29,175	41,609	15,595	36,452	186,806
16–20	23,814	11,720	14,285	24,331	7,584	19,211	100,945
295 mountain counties:							
7–15	57,855	176,237	151,209	212,967	182,447	249,295	1,030,010
16–20	30,442	75,083	57,971	109,712	77,893	127,249	478,350
Entire State:							
7–15	380,361	481,745	489,876	479,809	349,529	337,564	2,518,884
16–20	119,272	230,939	241,001	253,469	180,523	162,658	1,187,862

[1] Data from U. S. Census Report, 1930.

TABLE 4.—*Children of elementary and secondary school ages per square mile, 1930*

Ages by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
7–15	6.02	9.3	9.2	6.5	7.0	8.3
16–20	2.9	3.9	4.1	3.0	3.1	3.9
5 nonmountain counties:						
7–15	17.6	11.3	8.0	15.4	6.1	23.6
16–20	10.2	5.7	5.9	9.0	3.0	12.5
Entire mountain counties:						
7–15	8.7	14.5	13.9	12.3	9.4	13.1
16–20	4.5	6.1	5.3	6.3	4.0	6.7
Entire State:						
7–15	6.4	11.9	10.0	11.5	8.7	14.1
16–20	3.4	5.7	4.9	6.0	4.5	6.8

Perhaps the most important consideration relating to school conditions in the southern mountains is the question of whether or not there are schools available within reasonable distances of the children's homes. The factors involved in this question are many and complex.[2]

Comprehensive information concerned with school accessibility is not available. Data which provide certain significant indices are, however, presented as indicative of the situation. They concern the proportion of children of school age enrolled in school; the comparative enrollments in the elementary and secondary grades; the average number of square miles per elementary and per secondary school; and the per-pupil expenditure for transportation.

Proportion of children attending school.—The proportion of children of school age enrolled in school is considered a practical measure of school availability. If the proportions in each of the several age groups compare favorably with those in other communities, it may be assumed that schools are available. However, evidence of enrollment does not necessarily mean that the schools are readily accessible or that the children attend regularly. In table 5 data are presented showing percentages of persons attending school in the several types of areas for the age groups 7–15, 16–20, and 21 years and over, corresponding roughly to the periods commonly associated with the elementary school, the high school plus junior college, and college plus any organized efforts in the field of adult education, respectively. In order to get an index of school enrollment for the entire school age group, the total number of children 7–15 years of age and those 16–20 years of age were combined and percentages found for the proportion reported to have been in school in each type of community studied.

These data indicate that of the children 7 to 15 years of age, the period most closely affected by the compulsory attendance laws,[3] from 5.7 to 19.7 percent failed to attend school during the school year indicated. For the counties representing the most mountainous sections of these States, the proportions not enrolled in school ran consistently higher than those of the representative nonmountain counties of the same States. In the mountain counties of Kentucky, nearly one of every five children of elementary school age failed to enroll in school; attendance in the nonmountain counties of this State was 12.6 percent higher than the average for the mountain

[2] Cook, Katherine M., *and* Gaumnitz, W. H. Availability of schools in rural communities. *In* the Status of Rural Education. Bloomington, Ill., Public School Publishing Co., 1931. (National Society for the Study of Education, 30th Yearbook, Part I.)

Gaumnitz, W. H. Availability of public-school education in rural communities. Washington, Government Printing Office, 1931. (U. S. Department of the Interior, Office of Education, Bulletin 1930, No. 34.)

[3] The compulsory laws of Kentucky, Tennessee, and West Virginia require the attendance at school of all children 7–16 years of age; Virginia, 7–15; North Carolina, 7–14; and Georgia, 8–14.

counties, closely paralleling the percentages in the same age group in the nonmountain sections of the other five States studied. The nonattendance was more than 10 percent in the most mountainous counties of all of the States except West Virginia.

TABLE 5.—*Percentages*[1] *of white persons of various age groups attending any type of school during the period from April 1929 to April 1930*

Age groups by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
7–15	88.1	80.3	89.9	87.9	84.5	93.2
16–20	29.1	29.7	34.2	32.5	28.6	36.3
Total, 7–20	68.8	65.3	72.7	70.3	67.2	75.0
Over 20	1.1	1.3	1.4	1.2	1.1	1.4
5 nonmountainous counties:						
7–15	93.3	92.9	92.5	92.9	91.2	94.3
16–20	35.2	36.3	39.9	34.6	34.8	35.6
Total, 7–20	71.9	73.8	75.2	71.4	72.8	74.1
Over 20	1.4	1.6	1.3	1.4	1.0	1.3
Entire State:						
7–15	89.4	89.4	91.8	90.3	90.4	92.5
16–20	32.0	31.9	33.8	34.2	32.7	32.5
Total, 7–20	69.7	70.8	72.7	70.9	70.7	73.0
Over 20	1.1	1.2	1.0	1.3	1.1	1.4

[1] For the United States the following percentages attended school from the several age groups: 7 to 15, 95.3; 16 to 20, 35.9; 7 to 20, 73.9; over 20, 1.4. Data from U. S. Census Report, 1930.

Of the children 16–20 years of age in the mountain sections of the several States, approximately two-thirds did not attend school during the period. This compares fairly closely with percentages found for these Southern States as wholes, as well as with percentages for the entire Nation. But when the percentages for the most mountainous and the nonmountainous counties are compared, substantial differentials may again be noted in favor of the latter, West Virginia again providing the exception. Among persons more than 20 years of age, the percentages show relatively small differences among the various types of areas.

The differences between the percentages for the most mountainous and nonmountainous sections of the various States are less marked among older children. They are no doubt able to walk greater distances. Those going to colleges no longer travel daily the distance from home to school. Moreover, some of the schools for pupils of high-school age are boarding schools, especially in the more mountainous sections. Private and philanthropic enterprises make a great effort to bring older persons from the more backward communities into contact with educational opportunities.

Elementary and secondary school enrollments.—Accessibility should

be considered also from the standpoint of the grade level attained. Data presented in table 6 show that only a small proportion of children of the more mountainous sections are enrolled in high school. While

School consolidation and accessibility must contend with roads like these.

the figures upon which these percentages are based do not include data from the missionary and philanthropic schools, it does not seem probable that the inclusion of children enrolled in them would materially alter the situation.

In every State the nonmountain counties show much larger percentages of the entire public-school enrollments attending high school than the mountain counties. If all the children old enough to attend the last 4 years of the public schools were enrolled in these grades, the percentage should approximate 30. That this percentage is seldom reached is indicated by the fact that the Nation's schools as a whole average only 17.1 In city school systems it tends to approach more closely the maximum than in rural communities. This fact accounts largely for the 30.6 percent of the school population found in high school in the nonmountain counties of Georgia. Fulton County, Ga., contains the city of Atlanta, in which enrollment in high school is high compared to that in other areas of the State.

TABLE 6.—*Percent of entire public-school enrollment found in elementary and in secondary grades*[1]

Types of schools by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Elementary	95.1	[illegible]	89.4	91.7	92.1	86.7
Secondary	4.9	4.6	10.6	8.3	7.9	13.3
5 nonmountain counties:						
Elementary	69.4	86.0	83.1	86.0	83.3	83.6
Secondary	30.6	14.0	16.9	14.0	16.7	16.4
Entire mountain counties:						
Elementary	89.8	93.8	85.1	89.1	86.1	88.1
Secondary	10.2	6.2	13.9	10.9	13.9	11.9
Entire State:						
Elementary	82.4	89.2	83.7	87.7	84.4	87.5
Secondary	17.6	10.8	16.3	12.3	16.6	12.5

[1] For the United States as a whole 82.9 percent of the public-school enrollment was in the elementary grades in 1930 and 17.1 percent was in the secondary grades. The secondary grades are here defined as the last 4 grades of the public-school organization.

Comparatively few of the children in school in the most mountainous counties, particularly in Georgia, Kentucky, or Virginia, attend high school, unless they go to nonpublic schools or schools outside of their home counties. Opportunities for secondary education are probably not available in the home counties. While fairly high percentages of those 16 to 20 years of age are attending school (see table 5), many are evidently still in the grades, and are either marking time because no high schools are available or are retarded.

Area per school in square miles and transportation expenditures.—Further evidence that the opportunity to obtain a secondary school education at public expense is not generally provided in the most mountainous sections of these States may be found in the data showing the average area per high school (see table 7). It seems reasonable to

assume that, barring the use of boarding and transportation facilities as means of overcoming distance from school, the average area served by the secondary school of a given community should not be much greater than the area served by the elementary school. The areas per elementary school are, therefore, likely to represent closely the maximum attendance areas of the high schools. It may be noted (see table 8) that in the mountain counties comparatively little money is spent for pupil transportation, thus indicating that the accessibility of the schools provided is not materially improved through this means. And, so far as is known, provisions are seldom made from public funds to pay the board of pupils who attend high school away from home. If, therefore, the basic assumption is granted, it is clear from the data presented that comparatively wide areas of the most mountainous counties are not within reach of schools offering high-school work.

TABLE 7.—*Average number of square miles per public school*

Types of schools by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
All schools	9.4	4.5	6.8	9.3	7.3	5.0
High schools	178.1	106.5	95.6	115.9	103.4	55.6
5 nonmountain counties:						
All schools	13.8	5.8	15.1	8.4	15.8	3.2
High schools	43.7	54.6	88.7	64.9	98.6	41.7
Total State:						
All schools	18.3	5.4	14.1	8.3	11.3	3.9
High schools	45.6	55.6	63.6	65.3	67.6	53.8

TABLE 8.—*Average expenditures for pupil transportation per public school*

State	5 most mountainous counties	5 nonmountain counties	Total State
1	2	3	4
Georgia	$26	$253	$453
Kentucky [1]	2	54	38
North Carolina	135	696	646
Tennessee	63	81	159
Virginia [1]	61	455	273
West Virginia	52	106	85

[1] Sums spent for pupil transportation were partially estimated from expenditures reported for auxiliary agencies.

The average area in square miles served by all schools in the nonmountain counties is greater in Georgia, North Carolina, and Virginia

than in the mountain counties of these States. However, the nonmountain counties in these States show unusually large expenditures for pupil transportation. In the other three States the average areas vary comparatively little for all schools. The area per high school is, however, considerably greater for the mountain counties of all six States than for the nonmountain counties. In Kentucky and Tennessee the average area per high school is nearly twice and in Georgia more than three times as great in the most mountainous counties as in the nonmountain counties. Even if the secondary schools were centrally located and if the children could travel to and from such schools in a direct line "as the crow flies", those living farthest away would obviously have to travel long distances to school. In the most mountainous counties of Georgia, for example, the distance might be more than 6½ miles each way. High schools in the mountain counties are as a rule in villages not often located in the geographical center of the respective counties. Moreover, the more mountainous the area, the more likely it is that a given point can be reached only by a circuitous route.

Although the data presented thus far are somewhat general and indirect in character, they indicate that public schools, especially high schools, are not as available in the mountain as in the nonmountain areas of the States in question and that inaccessibility is more serious in the most mountainous counties. It also appears that many children of high-school age attending school are still in the elementary grades.

Some Measures of the Amount and Quality of Schooling

Grade levels attained.—Table 9 presents data concerned with the grade levels to which the children in the different types of areas are retained in school. Taking the third grade as representing 100 percent attendance, percentages were computed which show the extent to which the children are still in school when the sixth grade, the first year of high school, and the last year of high school, respectively, are reached. The third grade is used as a basis because, by the time the child reaches this grade, he is normally 8 or 9 years of age. He is old enough to withstand the hardships entailed in traveling reasonable distances to school and not old enough to be kept home for work or to stay away from school because he thinks himself too grown up to attend.

The data indicate that there are about two-fifths as many pupils in the sixth grade of the schools of the most mountainous counties of Kentucky as in the third grade. In the nonmountain counties of the State fully two-thirds of the pupils are retained to the sixth grade.

In Tennessee and Virginia also the percentages of pupils retained to the sixth grade are higher in the nonmountain counties. In North Carolina, however, a larger proportion of pupils of the most mountainous counties stay in school to the sixth grade than in the nonmountain counties.

TABLE 9.—*Ratios* [1] *of pupils enrolled in sixth grade of the public elementary school, the first year of high school, and the last year of high school to each 100 pupils in the third grade, 1930*

Grade levels reached by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Sixth grade	77.2	41.1	79.2	66.8	72.9	80.8
First year high school	19.0	16.3	29.9	24.3	25.2	45.2
Last year high school	7.0	3.7	14.6	13.2	9.0	16.8
5 nonmountain counties:						
Sixth grade	77.2	66.7	72.1	82.2	88.8	81.4
First year high school	60.7	49.1	53.8	46.5	49.3	54.8
Last year high school	26.7	20.5	24.1	19.9	20.3	25.3
Entire mountain counties:						
Sixth grade	65.7	52.8	70.4	70.5	73.3	76.2
First year high school	31.2	21.9	41.3	32.8	39.1	39.1
Last year high school	11.5	6.2	17.2	15.4	15.9	16.3
Entire State:						
Sixth grade	71.3	60.5	71.4	73.2	78.3	78.3
First year high school	48.3	33.0	48.5	37.2	42.5	40.8
Last year high school	19.3	10.8	20.3	17.4	21.8	17.7

[1] For the public schools for whites of the Nation as a whole the ratios are, respectively, 89.4, 72.1, and 36.1.

Ratios of enrollments in the first year of high school to those in the third grade are higher in the nonmountain counties of all the States. Indeed, comparisons for both the first and last years of high school show the effect of mountainousness upon pupil retention. If the data presented in table 10 are representative, there are whole mountain counties in the six States in which only about two of five children receive as much as a sixth-grade education. Even the best of the more mountainous counties seldom keep more than three-fourths of the children through this grade. With the exception of West Virginia and North Carolina, the schools of the more mountainous counties lose at least three out of every four children before they reach high school and only one-fourth to one-half of those who enter high school remain until the last year. The nonmountain counties of these States, other than West Virginia, retain about twice as many to high-school entrance and hold a much larger proportion of the children until they reach the fourth year of the secondary school.

Generally speaking, the schools of each of the six States as a whole consistently show better records in retaining pupils to the higher grades

than the mountain sections. For the high-school levels the differences are for the most part marked. The highest percentages retained in school, even in the nonmountain areas, are considerably below those found for the Nation as a whole. Some States in which the schools are developed beyond the average would, of course, show retention indices higher than those for the Nation as a whole.

Length of school term and days attended.—Two indices of the amount of school education provided in the mountain communities are the number of days per year schools are open and the number of days the pupils actually attend school. Data presented in table 10 give information of the types indicated. They may be read as follows: In the five most mountainous counties of Georgia the elementary schools are open an average of 141 days per year; in the five nonmountain counties they are open 179 days—nearly 2 months longer. In the former the pupils attend on an average 98 days annually and in the latter 142 days. The actual period of instruction received by the average child in the most mountainous counties of Georgia is nearly 9 weeks shorter each year than in the nonmountain counties. In at least three of the States the disadvantage of short terms in the most mountainous counties is aggravated by irregular attendance.

TABLE 10.—*Term length and number of days attended per pupil enrolled in public elementary schools*[1] *in 1930*

Measures compared by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Average days schools were in session	141	143	134	155	164	156
Days attended per pupil	98	97	100	105	134	123
5 nonmountain counties:						
Average days schools were in session	179	151	151	171	177	164
Days attended per pupil	142	113	114	138	147	131
Entire mountain counties:						
Average days schools were in session	145	147	148	161	169	160
Days attended per pupil	105	104	111	122	138	127
Entire State:						
Average days schools were in session	159	164	157	162	173	160
Days attended per pupil	122	119	120	123	143	128

[1] The average length of the school term for the white schools of the United States and of States not segregating pupils on the basis of races, was 177 days; the average number of days attended by the pupils of such schools for the Nation was 148.

Illiteracy.—Two types of illiteracy data are discussed in this study. (See table 11.) The illiteracy of persons 10–20 years of age may be thought of as the present responsibility of the schools. The illiteracy of persons older than 20 may be regarded as evidence of the past failure of the schools. The fact that the percentage of illiterates

shown for the younger age group is in every case very much lower than for the older group, indicates that a greater effort is being made than formerly to achieve some education.

TABLE 11.—*Percentages illiterate* [1] *by age groups*

Age groups by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
10–20 years	1.6	5.9	3.0	4.6	5.5	1.5
Over 20 years	5.2	13.3	10.9	12.4	14.6	6.3
5 nonmountain counties:						
10–20 years	.7	2.5	2.1	1.2	2.3	1.0
Over 20 years	1.8	7.0	6.9	3.1	5.0	3.4
Entire mountain counties:						
10–20 years	2.3	4.2	2.6	2.8	3.5	1.5
Over 20 years	6.3	11.7	9.5	8.4	8.9	6.3
Entire State:						
10–20 years	1.7	2.8	2.0	2.5	2.4	1.4
Over 20 years	4.1	6.8	7.7	6.6	5.9	5.6

[1] For the white population of the United States the percentages were, respectively, 0.9 and 5.3. Data from U. S. Census Report, 1930.

Data for both age groups are favorable to the nonmountain counties. In the most mountainous counties of Kentucky, Virginia, and Tennessee, approximately 1 in 20 of the children of school age were reported as illiterate in 1930; of those over 20 years of age in the most mountainous counties of 4 States, more than 1 in 10 were unable to read and write. There is some evidence that the more backward communities are now improving more rapidly than the nonmountain sections. In any event, the data presented in table 11 do not show as much illiteracy in the most mountainous sections as the general reports from these regions would lead one to expect. Due to the high literacy rate of Fulton County, containing the city of Atlanta, the nonmountain area of Georgia is the only type area included in this study in which the illiteracy now "in the making" is lower than that of children 10 to 20 years of age for the Nation as a whole. The nonmountain counties of four of these States, however, show a smaller percentage of white adult illiterates than the average for the Nation. In all but one case, the illiteracy percentages of the six States, taken as wholes, are considerably higher than those for the Nation.

Age-grade status of pupils.—A measure commonly used as an index of the effectiveness of schools is the age-grade status of the pupils. Assuming that a child 6 or 7 years old should be in the first grade, one 7 or 8 years old in the second grade, one 8 or 9 years old in the third grade, and so on, table 12 shows that the percentages of children

who are above normal age for their grades are higher in the most mountainous counties than in the nonmountain counties of the respective States. Retardation is apparently nearly as great a problem in the high school as in the elementary grades. No data wholly comparable are available for the Nation as a whole, but a sample study, based upon data for 1927 [4] involving 116,651 white pupils in the elementary grades of 70 representative city schools located in 35 States, showed 13.4 percent over age; another study made in 1928 [5] of 7,632 pupils in the elementary grades of 45 representative consolidated schools showed that 15.2 percent of the children were a year or more retarded; still another study made in 1930,[6] including both elementary and secondary schools located in the rural communities of 22 counties of 5 representative States, showed that of the 52,574 pupils involved, 17.6 percent were 1 or more years retarded.

TABLE 12.—*Percentage of children above normal age for grade in which enrolled*[1]

Types of schools by type of area	Kentucky	North Carolina	Tennessee	Virginia
1	2	3	4	5
5 most mountainous counties:				
Elementary	53.6	47.5	39.9	62.2
Secondary	36.4	49.5	.....	48.1
5 nonmountain counties:				
Elementary	36.3	40.9	29.3	48.8
Secondary	21.0	43.9	.....	[2] 36.1
Entire mountain counties:				
Elementary	43.9	42.1	41.7	47.7
Secondary	34.3	48.6	.....	42.9
Entire State:				
Elementary	36.7	37.9	37.2	41.8
Secondary	26.6	43.9	.....	35.1

[1] No data available for Georgia and West Virginia or for secondary schools of Tennessee.
[2] Halifax County omitted because of apparent inaccuracy of data reported.

Table 13 offers additional data concerning retardation. It should be read as follows: 64 percent of the 10-year-old children of the most mountainous counties of Kentucky are retarded. Of these, 23.6 percent are retarded 1 year; 21.1 percent, 2 years; and 19.3 percent, 3 or more years. In the nonmountain counties of this State, 37.8 percent of the 10-year-old children are retarded; 19.4 percent, 1 year; 10.9 percent, 2 years; and 7.5 percent, 3 years or more. It is significant to

[4] Blose, D. T., *and* Segel, David. The school life expectancy of failures in the elementary grades. American School Board Journal, March 1933.
[5] Blose, D. T. An age-grade study of 7,632 elementary pupils in 45 consolidated schools. Washington, Government Printing Office, 1930. (U. S. Department of the Interior, Office of Education, Pamphlet No. 8.)
[6] Gaumnitz, W. H. Availability of public education in rural communities. Washington, Government Printing Office, 1930. (U. S. Department of the Interior, Office of Education, Bulletin 1930, no. 34.)

note that the differences between the percentages for the two types of communities become greater as the number of years of retardation increases. The proportion of the children retarded as well as the number of years they are retarded is considerably greater among the 14-year-olds than among the 10-year-olds. Not only are larger proportions of the children retarded as they become older, but the number of years the average child is retarded increases as he becomes older. These facts probably account to a considerable degree for the comparatively small number of pupils shown by table 9 to reach the upper grades of the school. There is a tendency for retarded children to become discouraged and leave school.

TABLE 13.—*Number of years 10-year-old children and 14-year-old children are retarded*

Years retarded, by age group	Kentucky		North Carolina		Tennessee		Virginia	
	5 most mountainous counties	5 non-mountain counties	5 most mountainous counties	5 non-mountain counties	5 most mountainous counties	5 non-mountain counties	5 most mountainous counties	5 non-mountain counties
1	2	3	4	5	6	7	8	9
Total 10-year-old children	1,615	2,622	2,113	3,645	1,922	5,610	1,975	1,094
Percent of total retarded	64.0	37.8	50.2	42.9	44.5	30.1	60.6	33.0
1 year	23.6	19.4	22.9	23.0	19.6	15.9	30.3	19.0
2 years	21.1	10.9	16.6	12.8	11.9	8.7	23.6	11.2
3 years or more	19.3	7.5	10.7	7.1	13.0	5.5	6.7	2.8
Total 14-year-old children	1,255	2,199	1,648	2,777	1,088	2,964	1,894	867
Percent of total retarded	81.1	47.3	77.3	60.0	63.8	62.7	84.4	62.0
1 year	26.9	17.1	28.0	21.3	19.9	24.3	22.3	24.6
2 years	11.2	11.7	22.2	16.7	18.0	17.2	26.3	18.3
3 years	18.0	7.9	13.7	12.3	11.0	10.8	18.4	10.1
4 years	11.0	5.5	8.3	6.1	7.4	6.5	6.7	4.5
5 years or more	14.0	5.1	5.1	3.6	7.5	3.9	10.7	4.5

Qualifications of teachers.—Educators generally agree that the most important factor in school efficiency is the teacher. Other things being equal, the teacher most thoroughly trained should be the most successful. It follows that the quality of the education provided by the school is to a degree determined by the amount of training the teachers have received. In order to examine this aspect of the education provided in the southern mountains, data are presented (see table 14) to show, first, the proportion of the teachers serving these schools who have high-school education or less and, second, the proportion who have 2 years or more of college education. Those in the first group are above

the level of the general population of these communities, but inadequately trained for teaching. The second group have training now widely accepted as a minimum standard for teaching certificates.

TABLE 14.—*Percent of teaching staff having high-school education or less and percent having 2 or more years of college education* [1]

Amount of education by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
High-school graduation or less	77.7	76.1	[2] 33.1	42.5	28.7	[2] 21.5
2 years' college or more	9.9	14.9	44.1	31.7	29.2	56.2
5 nonmountain counties:						
High-school graduation or less	10.7	21.3	[2] 7.5	31.6	5.1	[2] 22.3
2 years' college or more	78.3	57.7	72.6	48.2	59.4	43.1
Entire mountain counties:						
High-school graduation or less	60.3	29.6	[2] 16.2	46.4	13.3	[2] 19.7
2 years' college or more	28.8	57.8	63.5	26.9	46.6	51.7
Entire State:						
High-school graduation or less	45.8	37.4	[2] 8.9	29.0	8.4	[2] 17.3
2 years' college or more	41.1	47.3	74.7	45.1	59.6	51.2

[1] According to the National Survey of the Education of Teachers, only 4.2 percent of all the teachers of elementary and secondary public schools reported 4 years of high-school education or less; 81.2 percent reported 2 years of college or more.

[2] Less than 1 year in college.

Mountain school and teacher's cabin.

With the exception of West Virginia, the differences between the training of the teachers of the most mountainous counties and of those of the nonmountain counties are favorable to the latter. (See table 14.) In the most mountainous counties of Georgia and Kentucky, for example, more than three-fourths of the teachers have a high-school education or less. In the former, the percentage of teachers

with this training is more than seven times as great in the most mountainous counties as in the nonmountain counties. In Virginia the percentages of such teachers in all types of areas are smaller than in any of the other States, but in the most mountainous counties the proportion is nearly six times as great as in the nonmountain counties.

In the nonmountain counties of the States having the best record in teacher preparation a considerable proportion of the teachers are comparatively unprepared and nearly one-half fall below the accepted standard of 2 years of college education. The recent oversupply of teachers is resulting in raising the certification standards and consequently in lowering the percentages of undertrained teachers. While comprehensive comparative data are not available, progress along this line in the most mountainous counties appears to be less satisfactory than in the nonmountain counties as indicated in the table.

Experience is usually also considered an important measure of the efficiency of teachers. Studies of experience as a factor in teaching efficiency verify the general observation that especially during the first 5 years of service in the schools a teacher gains in knowledge and skill through professional reading, contacts with fellow teachers, and similar types of experiences. Although the differences are comparatively small, the percentages (see table 15) show clearly that in all of the six States, except Virginia, the schools of the most mountainous counties employ a larger proportion of beginning teachers than those of the nonmountain counties. Conversely, the nonmountain counties of all but West Virginia attract and hold a larger proportion of experienced teachers. A study of 150,182[7] teachers employed in 1930 in schools located in centers of 2,500 or fewer population in the United States revealed that 17.4 percent were teaching their first year, while 68.4 percent had taught 3 or more years. For the most part, the available data show that stability of the teaching force does not differ widely in the six States from that in the Nation as a whole. The slight advantage shown by some of these States in this respect would probably disappear entirely if, as in the Nation-wide study, data from city schools were excluded.

Another factor which determines to some degree the quality, training, and fitness of the persons employed as teachers is the salary paid. The average annual salaries of teachers and supervisors of the various types of counties in 1930 are shown in table 16. The average teacher employed in the most mountainous counties of Georgia was paid $436 per year; in Kentucky, $510; in Virginia, $588; in North Carolina, $654; in Tennessee, $716; and in West Virginia, $988. The salaries are

[7] Gaumnitz, W. H. Status of teachers and principals employed in the rural schools of the United States. Washington, Government Printing Office, 1932. (U. S. Department of the Interior, Office of Education, Bulletin, 1932, No. 3.)

higher in the nonmountain counties in all States. Omitting Georgia, the differentials range approximately from $250 to $400.

TABLE 15.—*Percent of teachers new to the profession and those having 3 or more years of experience, 1930*

Teaching experience by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia [1]
1	2	3	4	5	6	7
5 most mountainous counties:						
First year	16.7	21.4	9.0	14.3	10.5	10.9
3 or more years	60.9	55.1	71.4	57.4	66.6	72.5
5 nonmountain counties:						
First year	4.8	14.6	7.6	13.0	12.5	7.2
3 or more years	83.0	63.9	76.4	65.8	68.8	64.9
All mountain counties:						
First year	13.2	17.8	8.6	14.3	9.2	9.5
3 or more years	63.6	54.9	67.2	61.3	71.6	71.5
Total State:						
First year	7.4	15.2	[2] 8.1	11.2	8.2	9.6
3 or more years	77.5	61.1	[2] 72.3	66.3	73.0	73.8

[1] Partially estimated. [2] White and Negro.

TABLE 16.—*Average annual salaries [1] paid to teachers and supervisors*

Type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties	$436	$510	$654	$716	$588	$988
5 nonmountain counties	1,712	876	1,051	1,123	836	1,358
Entire mountain counties	555	769	911	891	778	1,052
Entire State	816	988	998	932	959	1,099

[1] The average annual salary of all teachers and supervisors of public schools in the United States, including Negro schools, was $1,420 in 1930.

FINANCIAL MEASURES OF EDUCATIONAL OPPORTUNITIES

Average annual expenditures.—When the educational opportunities of two or more communities are compared from a financial viewpoint, two major considerations are: The amount spent annually to support the public-school program; and the money invested in housing and material equipment. To secure measures whereby the various groups of counties may be compared, annual expenditures for the public schools for whites, except funds invested in new sites, buildings, and equipment, were totaled by counties and by groups of counties. (See table 17.) These were then divided (1) by the total number of white teachers employed in the schools, (2) by the number of white children

6–20 years of age living in the respective counties, and (3) by the number of pupils enrolled in the public schools for whites.

TABLE 17.—*Average amounts*[1] *spent for public elementary and secondary education in 1930 by types of areas*

Unit of measure by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Per teacher	$526	$611	$803	$879	$702	$1,260
Per census child	14	13	19	19	16	41
Per pupil enrolled	16	19	24	26	22	54
5 nonmountain counties:						
Per teacher	2,097	1,150	1,424	1,549	1,212	1,800
Per census child	52	24	32	30	30	53
Per pupil enrolled	63	34	42	44	42	74
All mountain counties:						
Per teacher	688	861	1,229	1,112	1,014	1,439
Per census child	14	16	28	24	22	41
Per pupil enrolled	20	22	37	33	30	54
Total States:[2]						
Per teacher	1,081	1,312	1,373	1,198	1,333	1,459
Per census child	25	24	31	27	31	42
Per pupil enrolled	33	35	41	36	42	56

[1] Computed on the following bases: Per teacher employed in public elementary and high schools, per child 6 to 20 years of age living in each type of area indicated, and per child enrolled in public schools. Data are for whites only. Teachers, as the term is here used, means the entire instructional staff and includes teachers, supervisors, and principals.

[2] Comparable per capita figures for the United States as a whole are, respectively, $2,241, $51, and $77.

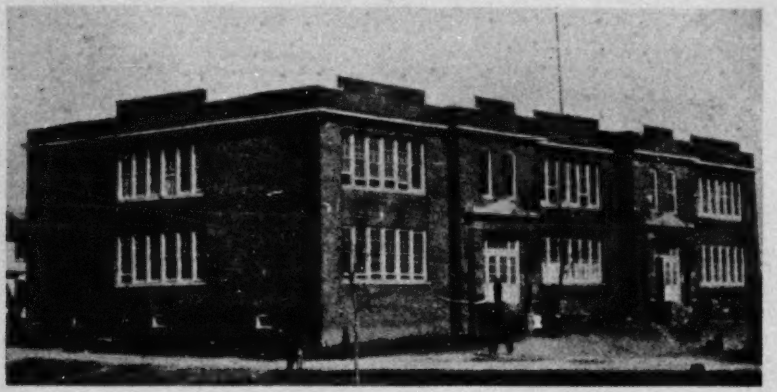
While each type of divisor has its own peculiar significance as a measure of the amount and quality of education provided, the annual per-teacher cost is probably the best of the three measures of financial support in a given community. It overcomes somewhat the differences due to sparsity of population. In one-teacher schools it is roughly equivalent to all the money spent for school purposes.

The measure of comparative costs most commonly employed in the United States is the average expenditure per pupil. Since this measure does not consider the children of school age who live in a given area but are not attending school, the per-capita costs were computed also on the basis of all children 6–20 years of age who live in each group of counties as given by the United States census report. The three types of data are presented in table 17.

Great variations in public-school expenditures among the States and between similar types of communities are shown in the table. In each case, except for the nonmountain group, Georgia shows the lowest annual expenditure for public education; West Virginia the highest. The schools of the most mountainous counties of Georgia and Kentucky spent less than half as much on education as those of

West Virginia. Insofar as greater expenditures mean better schools, comparisons between the most mountainous and the nonmountain counties reveal significant differences in favor of the latter. The differences in expenditures shown are from 45 percent higher in West Virginia to nearly 300 percent higher in Georgia. When comparisons are made to the United States as a whole, even the highest average expenditure found in these six States falls below the national average.

Value of buildings, grounds, and school equipment.—Data to show the amount of money per teacher and per child 6–20 years of age invested in school buildings and sites and in permanent school equipment are presented in table 18. The value of school property reported by local school officers is in part estimated. However, it is believed that the counties in question follow the same method of determining and reporting the amount of money invested in school property. The data are therefore assumed to be comparable among the several States.



Modern high school located in the county seat of a typical mountain county.

Certainly they permit comparison between the groups of counties within each State. In the case of West Virginia separate data for white and Negro schools were not available for either the value of school buildings and grounds or for the equipment. Hence the data presented for this State are for both races. The same is true of equipment values recorded for Kentucky.

The five most mountainous counties, as well as the mountain counties as a whole within each State, have apparently invested comparatively little in school buildings and equipment. If it is assumed that the averages for the nonmountain counties represent the amount a community should invest in school buildings and equipment, it may be concluded that the more mountainous groups of counties fall far short of the need. In Georgia, for example, the most mountainous

counties report an average investment in buildings and grounds of less than $800 per teacher as compared to more than $5,000 in the nonmountain counties—a ratio of 1 to 6. In Kentucky the most mountainous counties show an investment less than one-fourth that of the nonmountain counties. In Tennessee and West Virginia the difference is less striking. But even in these States the nonmountain counties have invested nearly 1½ times as much money in school buildings and grounds per unit of measure as the most mountainous counties. The entire mountain counties of the several States, with the exception of Tennessee, show consistent and marked disparities when the average values of school buildings and grounds are compared with those of the

TABLE 18.—*Average value of buildings and grounds and of school equipment per teacher employed and per child 6–20 years of age* [1]

Bases by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia [2]
1	2	3	4	5	6	7
5 most mountainous counties						
Buildings and grounds:						
Per teacher	$792	$711	$1,710	$2,477	$1,602	$3,685
Per child	17	15	40	54	36	121
Equipment:						
Per teacher	142	[2] 166	223	264	191	416
Per child	3.1	[2] 3.0	5.3	5.7	4.4	13.6
5 nonmountain counties						
Buildings and grounds:						
Per teacher	5,085	3,032	5,033	3,478	3,209	5,075
Per child	126	64	114	68	81	151
Equipment:						
Per teacher	249	[2] 332	801	318	309	486
Per child	6.1	[2] 7.0	18.2	6.2	9.3	14.4
Entire mountain counties						
Buildings and grounds:						
Per teacher	1,918	1,793	4,380	3,492	3,220	3,910
Per child	40	33	99	75	71	112
Equipment:						
Per teacher	208	[2] 248	437	357	308	492
Per child	4.3	[2] 4.6	9.8	7.6	6.7	14.0
Entire State						
Buildings and grounds:						
Per teacher	2,901	2,999	4,991	3,335	4,259	4,035
Per child	66	65	112	74	98	116
Equipment:						
Per teacher	337	[2] 321	566	327	416	521
Per child	7.7	[2] 6.5	12.7	7.3	9.5	15.0

[1] Comparable figures for the white schools of the United States as a whole are, respectively, $7,013 and $604 per teacher, or $178 and $15 per child 6–20 years of age.

[2] Includes data for both whites and Negroes.

States taken as wholes. Compared on the per-child basis, the differences are greater than on the per-teacher basis.

Generally speaking, both in the value of school buildings and grounds and in the amount invested in school equipment, the mountain counties fall below State standards as well as below those maintained in the nonmountain counties of the respective States. When national averages are taken as standard, these shortcomings of the mountain schools are still more apparent. Averages do not, of course, show extreme conditions. In some communities visited there were no public-school buildings; church buildings and benches were used for school purposes. Equipment consisted of the few books and materials the children brought from home or which were provided through the resourcefulness of the teacher. Many public schools observed in the remote mountain communities are plain square buildings in poor repair, containing very little equipment.

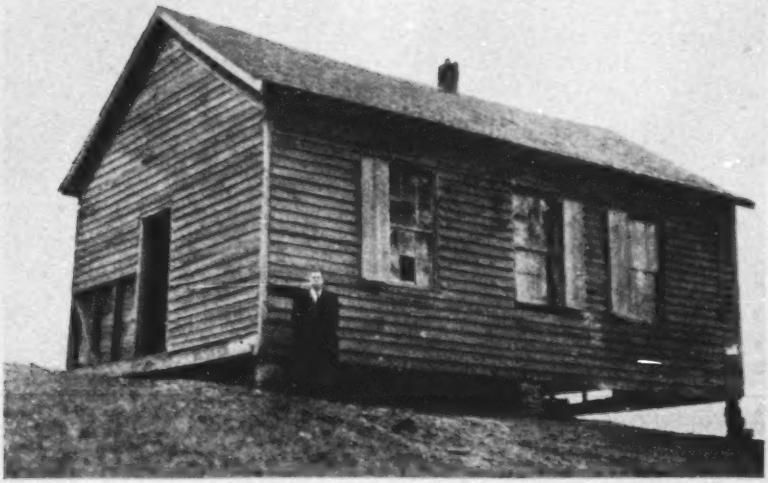
Under the local system of financing public education, widely practiced in the United States, the presence or absence of educational services, and the conditions of the schools in general, are found to bear a very close relationship to the wealth of the communities in which they are located.[8] Since the economic conditions of the southern mountains are below standard, the school buildings and equipment provided are also unsatisfactory.

Estimated taxable wealth available for the support of schools.—Some idea of the differences in taxable wealth among the types of communities in the States studied may be obtained from table 19, showing the estimated wealth per teacher employed and per child 7 to 20 years of age. The data include figures for both whites and Negroes.

The differences between the average estimated wealth per teacher for the most mountainous and the nonmountain counties are for the most part significant. The differences are somewhat less when computed on a per-child basis than when computed on a per-teacher basis. A comparison of the average expenditures and the per capita wealth suggests that the several groups of mountain counties levy slightly higher taxes for school purposes than the average of the respective State of which each is a part. Similar comparisons between these States and the Nation reveal, however, that school tax rates are somewhat lower in the six States than in the Nation as a whole.

Financial aid for schools from State sources.—It is of interest in this connection to note the extent to which schools in the States studied draw upon State funds to supplement or equalize the funds available for school purposes from local tax resources. Information is presented to show the amount of money contributed to the public schools from State sources computed on the basis of the number of teachers em-

[8] Cowden, Susie E. They Don't Pay Taxes. Journal of the National Education Association, 21: 259-61, November 1932.



Howard's School in 1924.

Howard's School in 1933.

No repairs were made until 1934 when Federal relief funds were used.

ployed and on the basis of the number of children 7–20 years of age living in the various counties. (See table 20.)

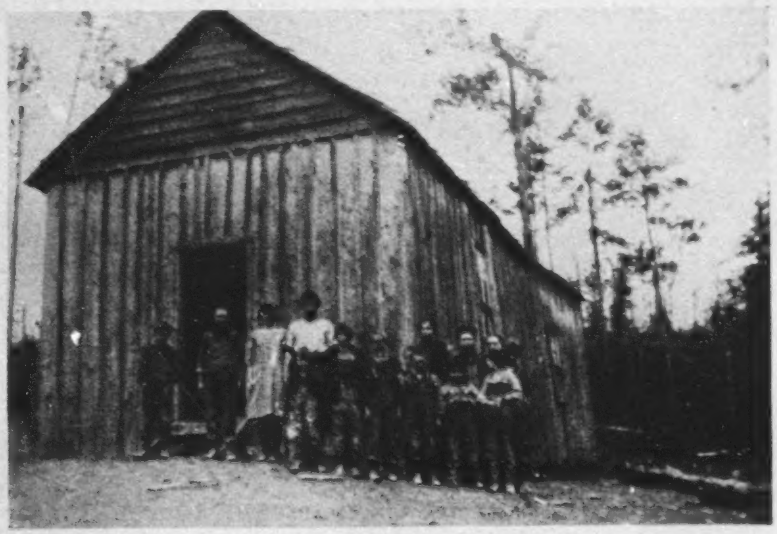
TABLE 19.—*Average amount of wealth [1] estimated to be available for taxation for schools for 1930, by types of areas*

Unit of measure by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Per teacher	$49,344	$64,457	$107,103	$118,697	$141,456	$180,015
Per child	1,154	1,463	2,758	2,770	3,433	6,311
5 nonmountain counties:						
Per teacher	313,756	205,943	192,188	475,488	157,315	266,138
Per child	6,418	4,673	4,320	9,592	3,478	8,466
Entire mountain counties:						
Per teacher	107,121	109,671	186,544	210,760	212,777	182,247
Per child	2,329	2,182	4,467	4,887	5,029	5,570
Entire State: [2]						
Per teacher	169,517	228,616	206,636	240,733	229,603	188,546
Per child	3,424	4,937	4,663	5,612	5,254	5,822

[1] Estimates of wealth shown are for both whites and Negroes and were computed on the following bases: (a) Estimated true wealth per teachers employed in all elementary and secondary schools, and (b) the estimated wealth per child 7–20 years of age living in each type of area.

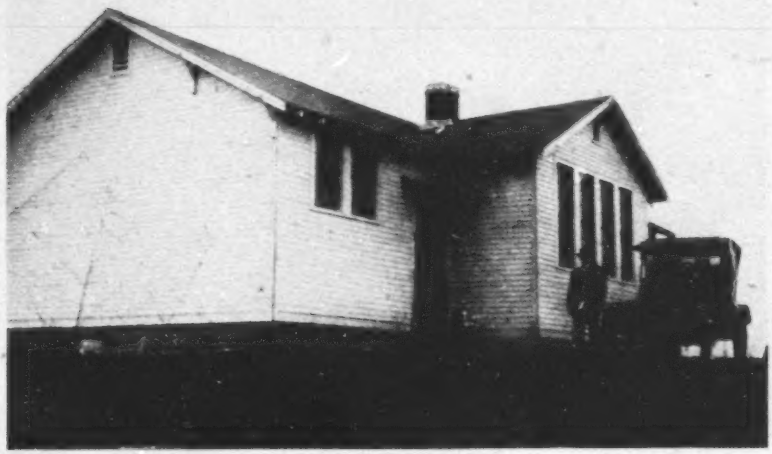
[2] An effort to find comparable estimates for the Nation as a whole resulted in $236,311 taxable wealth per teacher and $6,235 per child.

In West Virginia, North Carolina, Tennessee, and Georgia an effort is being made through State aid to offset the limitations of the



Abandonment of old clapboard buildings.

mountain counties due to inadequate taxable wealth. In West Virginia, and probably also in North Carolina, the favorable differential in State aid enjoyed by the most mountainous counties fully offsets the unfavorable differential in per-capita wealth. In Virginia there are comparatively small differences between mountain and nonmountain communities in estimated taxable wealth. In the other three States the aids provided from State sources for the schools of the most mountainous counties do not appear to offset the disparities in their ability to support schools. In Kentucky, for example, State aid per capita is, if anything, greater in the nonmountain counties



Replacement by new consolidated schools.

despite the fact that the per-capita wealth is more than three times as great as in the five most mountainous counties.

In recent years much progress has been made in the equalization of the educational opportunities through the use of State funds; West Virginia, North Carolina, and Tennessee are examples. If comparative data were available showing State aid in mountain and nonmountain counties for a date later than here presented, changes in the situation would probably appear in these States.

Human resources as a factor in school support.—The ratio which the number of adults 21 years of age and older bears to the number of children and youth to be educated is sometimes considered as a factor in a community's ability to support schools. Table 21 shows the

number of adults 21 years of age and above per child 7 to 15 years of age and per adolescent 16 to 20 years of age.

TABLE 20.—*Financial aid per teacher employed and per child 7–20 years old contributed from State sources for the support of public education, 1930* [1]

Unit of measure by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
Per teacher [2]	$421.00	$306.00	$443.00	$354.00	$342.00	$172.00
Per child [2]	9.63	6.94	11.40	8.26	8.29	6.27
5 nonmountain counties:						
Per teacher	262.00	307.00	250.00	232.00	403.00	57.00
Per child	5.13	6.97	5.53	4.67	9.01	1.81
All mountain counties:						
Per teacher	328.00	346.00	315.00	288.00	350.00	127.00
Per child	7.13	6.89	7.54	9.67	8.29	3.89
Total State:						
Per teacher	314.00	334.00	267.00	273.00	389.00	112.00
Per child	6.46	7.21	6.03	6.35	8.28	3.47

[1] Amounts of financial aid contributed include data for both white and Negro schools.
[2] The comparable figures for the United States are $375 per teacher and $9.87 per child.

TABLE 21.—*Number of persons 21 years of age and above per child 7–15 years of age and per adolescent 16–20 years of age, 1930* [1]

Age groups by type of area	Georgia	Kentucky	North Carolina	Tennessee	Virginia	West Virginia
1	2	3	4	5	6	7
5 most mountainous counties:						
7–15	2.2	1.7	2.0	2.0	1.9	2.2
16–20	4.6	4.1	4.4	4.2	4.1	4.6
5 nonmountain counties:						
7–15	3.7	2.9	2.4	3.4	2.7	3.2
16–20	6.4	5.7	4.9	5.8	5.5	6.0
Entire mountain counties:						
7–15	2.3	1.9	1.7	2.4	2.4	2.3
16–20	4.3	4.4	4.5	4.7	5.6	4.5
Entire State:						
7–15	2.6	2.7	2.3	2.4	2.8	2.5
16–20	4.9	5.6	4.7	4.5	5.4	5.1

[1] For the United States as a whole comparable ratios of adult whites are 3.41 to children 7–15 years of age and 6.54 to those 16–20 years of age. Data from U. S. Census Report.

In each of the six States there are substantially more adults—potential producers—per child of school age in the nonmountain counties than in the most mountainous counties. In the nonmountain counties of Kentucky, for example, there are 2.9 persons 21 years old or older to every child 7–15 years of age; to every child 16–20 years

old, 5.7 adults. In the most mountainous counties, however, the ratios are 1 child to 1.7 adults for the younger group of children, and 1 to 4.1 adults for the older group. In the nonmountain counties of this State there are, therefore, 1.2 and 1.6 adult producers more per child of elementary school and high-school age, respectively, than in the mountain counties. Georgia and Tennessee show very similar disparities. If the effects of this factor on the inequality in ability among the various types of counties to support an adequate school program are added to those previously mentioned, the lack of educational progress is more easily understood.

Rupert B. Vance [9] points out the significance of this factor in his study of the relationship of regional resources and human adequacy when he calls attention to the fact that 11 of the Southern States, with less than one-quarter of the Nation's population, have fully two-fifths of the Nation's children to rear and educate. If only the children living on farms are considered, it appears that the rural areas of these 11 States now rear and educate nearly two-thirds of all the farm children 5–20 years of age of the United States.

Availability of Schools in Selected Mountain Counties

Plan and purpose of this phase of the study.—In order to get a close-up view of the whole question of the accessibility of schools in the Southern Appalachians, a detailed study was undertaken of a number of selected mountain counties. Data are here presented in the form of county maps (see figs. II to VI and tables 22 to 25), which are supplemented with statistical data collected directly from individual schools. The five counties named below, with the State in which each is located, furnished the information necessary for this part of the study: Lumpkin, Ga.; Wolfe, Ky.; Macon, N. C.; Monroe, Tenn.; and Mercer, W. Va. These counties may be thought of as fairly typical of the most mountainous sections of these five States. They represent, therefore, those parts of the mountain areas in which the problems of making public educational opportunities readily accessible to all of the children are the most difficult.

Factual data presented in this section were collected directly from the schools and the county superintendents of the counties in question. The purpose is to provide, by way of illustration, answers to the following questions: Just how many and what kinds of schools are there in the most mountainous counties? How are they distributed over the area to be served? How far are the elementary schools from each other? The high schools? How far do the children live from the

[9] Vance, Rupert B. Human geography of the South. University of North Carolina Press, 1932. (University of North Carolina Social Study Series.)

schools provided? What provisions are made for transporting children? How much schooling do the children of the more mountainous counties get annually? To what age and grade level are they retained in school? [10]

Obviously there is a maximum distance beyond which a child can-

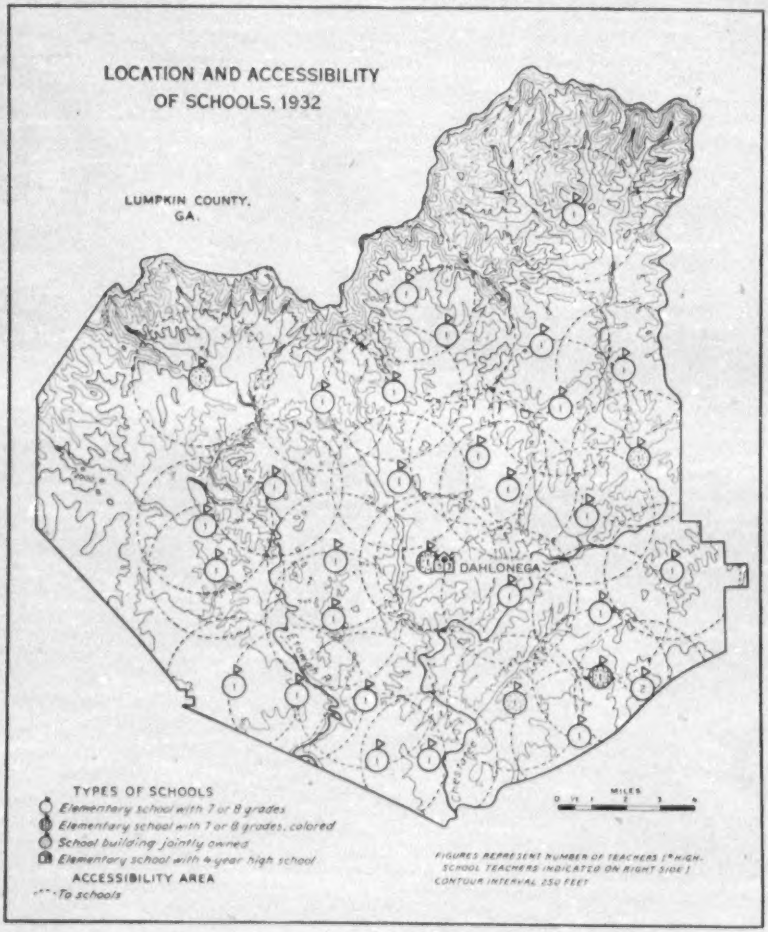

LOCATION AND ACCESSIBILITY
OF SCHOOLS, 1932
LUMPKIN COUNTY,
GA.
DAHLONEGA
TYPES OF SCHOOLS
Elementary school with 7 or 8 grades
Elementary school with 7 or 8 grades, colored
School building jointly owned
Elementary school with 4 year high school
ACCESSIBILITY AREA
To schools
MILES
FIGURES REPRESENT NUMBER OF TEACHERS (* HIGH-SCHOOL TEACHERS INDICATED ON RIGHT SIDE)
CONTOUR INTERVAL 250 FEET

FIGURE II.—Location and accessibility of schools, 1932, Lumpkin County, Ga.

not reasonably be expected to walk daily to and from school. It is clearly more than a matter of miles. Other important considerations

[10] Data somewhat less complete but similar in type were presented for 4 other mountainous counties, viz, Leslie, Ky.; Johnson, Tenn.; Buchanan, Va.; and Grant, W. Va.; in an earlier study. Economic and Social Problems and Conditions of the Southern Appalachians, Op. cit., pp. 113-19.

are: The time required and the effort expended in traveling to and from school. These vary with climate, topography, road conditions, the age of the child, cooperation of parents and the like. In surveys of city school systems, the practice followed in certain recent studies is to fix one-half mile as the maximum distance a child should walk to school. The maximum distance fixed in studies made by rural educators and by the compulsory education laws of most of the States is usually either 1½ miles or 2 miles. A maximum of 2 miles is the basis used for purposes of this section.

Location and distribution of schools.—The schools within the five counties were located on the county maps as accurately as possible, with the help of the county superintendents, and a circle drawn around each school upon a 2-mile radius. No home within a given circle is more than 2 miles from the school located at its center. The actual distance children walk to school may, of course, be greater. Mountain roads tend to wind in and out with the valleys and creeks. Precipitous mountains often act as barriers. Even where there are areas of fairly level country, the route from home to school will seldom follow a straight line.

The circles placed around the schools, together with the symbols showing that they serve the elementary or the secondary grades, or both, will afford some idea of the distances the schools of various types are from each other. (Figs. II to VI.) The schools are usually located in valleys and on bottom lands. In areas in which the contour lines are farthest apart, indicating little change in elevation, the circles overlap considerably; in areas in which the contour lines are close together, indicating mountainous terrain, there is comparatively little overlapping. Indeed, parts of the more mountainous areas are not included in any of the circles, indicating that such areas are located 2 miles or more from the nearest schools. The small circles, squares, and other symbols locating the schools, and the numbers within these symbols, show that almost all of the elementary schools are of the 1- and 2-teacher type. The high schools usually employ three or more teachers, indicating that they serve as central schools for several elementary school districts. In Lumpkin County, Ga., for example, there is only one high school in the entire county.

Transportation to either the elementary or the secondary schools is provided in comparatively small portions of these communities. One reason for the absence of transportation is that roads in the more mountainous sections are as a rule undeveloped. Where school bus routes are maintained, peculiar markings have been placed on the maps to indicate whether they serve the elementary pupils, the high-school pupils, or both. Lines paralleling the few existing bus routes were also marked out to show the territory located within 1½ miles

of these routes, the assumption being that children who live within 1½ miles of such routes may be thought of as being accessible to the schools to which these bus routes lead. Symbols are used to show white schools, Negro schools, and nonpublic as well as public schools.

Although these circles show that, even in these more mountainous counties of the Southern Appalachians, the number and distribution of the schools are such as to place practically all areas within 2 miles

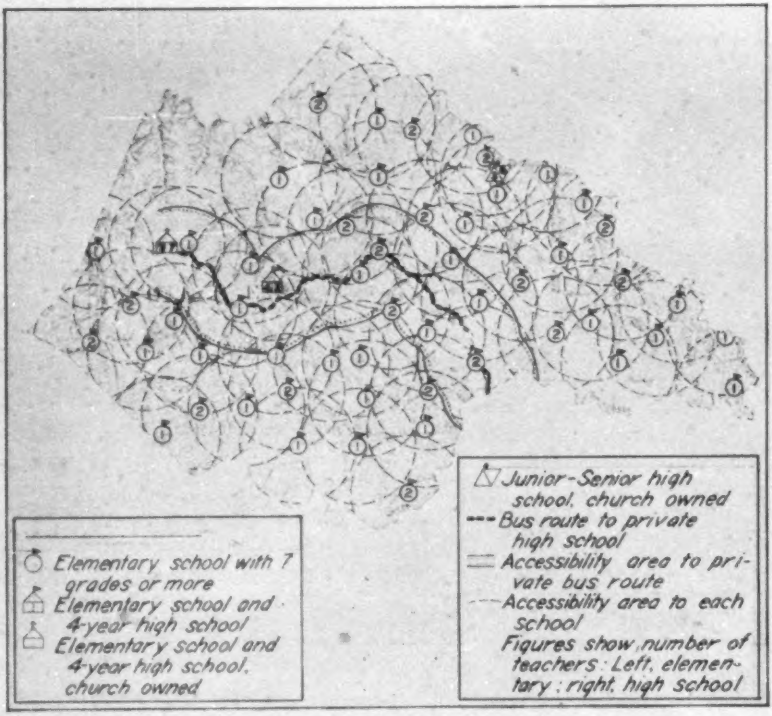

Elementary school with 7 grades or more
Elementary school and 4-year high school
Elementary school and 4-year high school, church owned
Junior-Senior high school, church owned
Bus route to private high school
Accessibility area to private bus route
Accessibility area to each school
Figures show number of teachers: Left, elementary; right, high school

FIGURE III.—Location and accessibility of schools, 1932, Wolfe County, Ky.

of some sort of an elementary school, there are areas in each county which fall outside of these circles. In Lumpkin County, Ga., and Macon County, N. C., nonschool areas are comparatively numerous and large. Mercer County, W. Va., on the other hand, has practically no such areas. The question of whether children of school age live within the areas outside the circles is very important. If these areas contain no children they are of little interest to us so far as the problem of the availibility of schools is concerned. Data were gathered directly from representative schools within these counties to show

the actual distances the children live from their schools. Most of the schools furnished information showing the distances between home and school of both the children attending school (see table 22) and those of school age who are not attending school (see table 23). It may be assumed that those reported as living more than 2 miles from school live outside of the circles. The data given in the tables concern only the children walking to school because provision for transportation involves changes in the problems of school accessibility.

Distances children live from school.—In each of the five counties there are some children both in and out of school who live more than

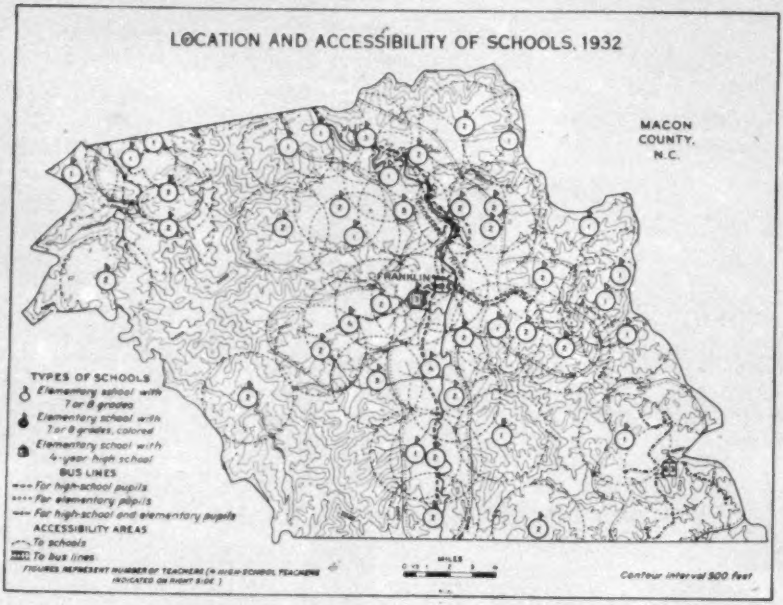

LOCATION AND ACCESSIBILITY OF SCHOOLS, 1932
MACON COUNTY, N.C.
FRANKLIN
TYPES OF SCHOOLS
Elementary school with 7 or 8 grades
Elementary school with 7 or 8 grades, colored
Elementary school with 4-year high school
BUS LINES
For high-school pupils
For elementary pupils
For high-school and elementary pupils
ACCESSIBILITY AREAS
To schools
To bus lines
FIGURES REPRESENT NUMBER OF TEACHERS (4 HIGH-SCHOOL TEACHERS INDICATED ON RIGHT SIDE)
MILES
Contour interval 500 feet

FIGURE IV.—Location and accessibility of schools, 1932, Macon County, N. C.

2 miles from the nearest schools provided. (Table 22.) Of those attending school in these counties a total of 1,098, or 9.2 percent, live from 2 to 4 miles, and 143, or 1.2 percent, live 4 miles or more from the school. Of the out-of-school children in the five mountain counties there are 489 children living from 2 to 4 miles from a school and 48 living 4 miles or more; or in percentages, 30 and 2.9, respectively. There is good reason to believe that many of the out-of-school children were not reported by the schools and that the proportions unreported vary directly with the distances they live from the schools furnishing the information. If all of the out-of-school children were included,

the percentages of children living beyond the 2- and 4-mile ranges would probably be much larger than those given. (The data available

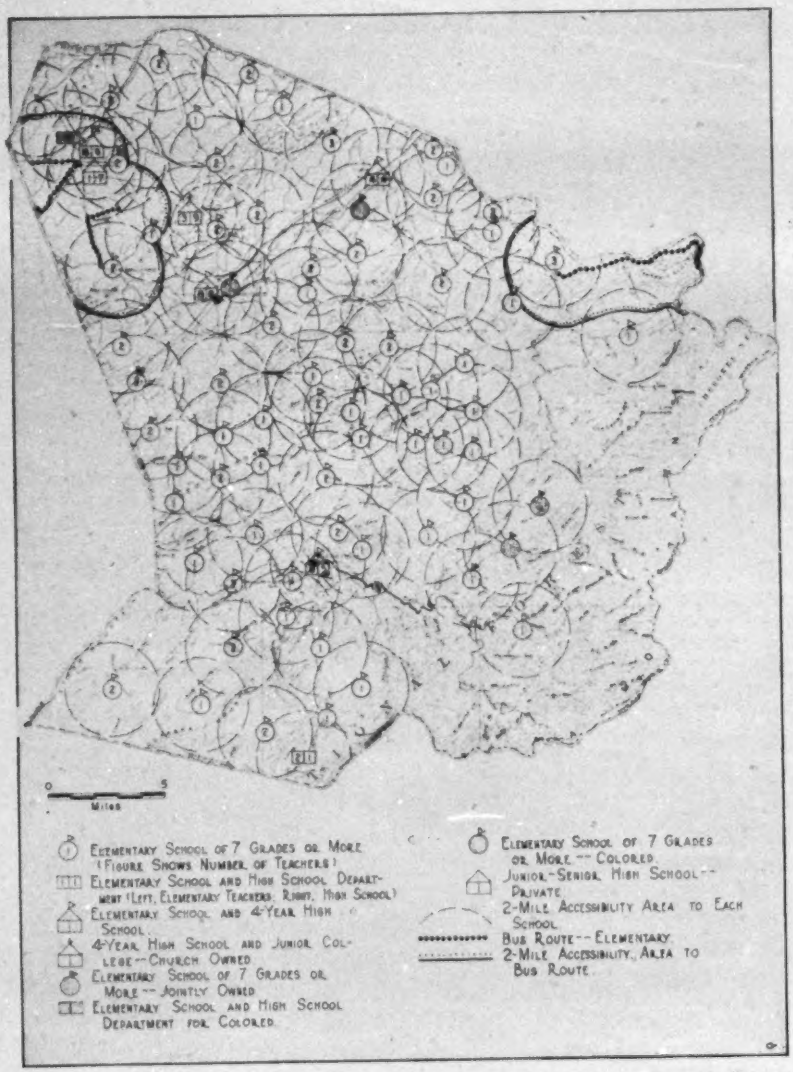

0
5
Miles
Elementary School of 7 Grades or More (Figure Shows Number of Teachers)
Elementary School and High School Department (Left, Elementary Teachers; Right, High School)
Elementary School and 4-Year High School
4-Year High School and Junior College--Church Owned
Elementary School of 7 Grades or More--Jointly Owned
Elementary School and High School Department for Colored
Elementary School of 7 Grades or More--Colored
Junior-Senior High School--Private
2-Mile Accessibility Area to Each School
Bus Route--Elementary
2-Mile Accessibility Area to Bus Route

FIGURE V.—Location and accessibility of schools, 1932, Monroe County, Tenn.

indicate that a large number of children live in the areas which fall outside of the 2-mile limits fixed by the circles on the county maps.)

The distances reported for a few of those older than 12 years living more than 2 miles away were probably the distances to the nearest high schools. Since this is the level of education from which they could profit most, the distance to high school is, for such children, the true measure of accessibility to school.

In Lumpkin County, Ga. (see table 22), one child in seven of the children 5 to 12 years of age reported in school lives 2 or more miles from school; of those 12 years or older, nearly one in three lives 2 miles or more from school. In Macon County, N. C., the proportion for the younger age groups is somewhat greater than in Lumpkin County; for the older children it is much smaller, due to the fact that transportation is provided to high schools. For a large number of children in these counties, no school is available within 2 miles of their homes.

TABLE 22.—*Number and percent of nontransported children living various distances from the schools they attend given by age groups for 5 of the most mountainous counties*

Distances by age group	Lumpkin County, Ga.		Wolfe County, Ky.		Macon County, N. C.		Monroe County, Tenn.		Mercer County, W. Va.		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13
Total younger than 9 years	459	100.0	473	100.0	1,000	100.0	958	100.0	1,339	100.0	4,229	100.0
Less than 2 miles	404	88.0	445	94.1	860	86.0	885	92.4	1,328	99.2	3,922	92.7
2 to 4 miles	46	10.0	28	5.9	139	13.9	69	7.2	11	.8	293	6.9
4 miles or more	9	2.0	0	0	1	.1	4	.4	0	0	14	.4
Total 9 to 12 years of age	599	100.0	575	100.0	1,255	100.0	1,129	100.0	1,424	100.0	4,897	100.0
Less than 2 miles	437	85.8	526	91.5	1,053	84.9	1,002	88.8	1,400	98.0	4,418	90.2
2 to 4 miles	58	11.4	49	8.5	199	15.9	123	10.9	29	2.0	458	9.4
4 miles or more	14	2.8	0	0	3	.2	4	.3	0	0	21	.4
Total 12 years of age or more	456	100.0	365	100.0	875	100.0	638	100.0	517	100.0	2,851	100.0
Less than 2 miles	319	69.9	322	88.2	768	87.8	511	80.1	476	92.1	2,396	84.0
2 to 4 miles	65	14.3	43	11.8	100	11.4	98	15.4	41	7.9	347	12.2
4 miles or more	72	15.8	0	0	7	.8	29	4.5	0	0	108	3.8
Total all ages	1,424	100.0	1,413	100.0	3,130	100.0	2,725	100.0	3,285	100.0	11,977	100.0
Less than 2 miles	1,160	81.5	1,293	91.5	2,681	85.6	2,398	88.0	3,204	97.5	10,736	89.6
2 to 4 miles	169	11.9	120	8.5	438	14.0	290	10.6	81	2.5	1,098	9.2
4 miles or more	95	6.6	0	0	11	.4	37	1.4	0	0	143	1.2

The data presented also reveal that some children of all age groups must walk long distances to school. The percentages living 2 miles or more from school are higher among the older children. The

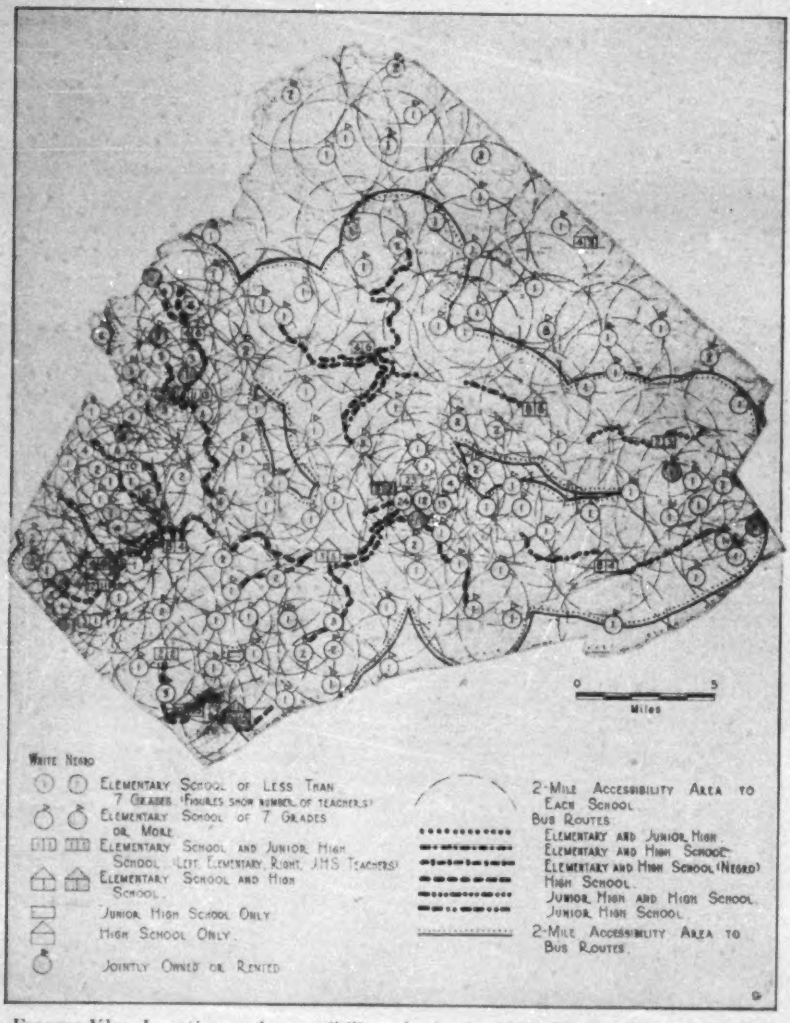

0
5
Miles
White Negro
Elementary School of Less Than 7 Grades (Figures show number of teachers)
Elementary School of 7 Grades or More
Elementary School and Junior High School (Left, Elementary, Right, J.H.S. Teachers)
Elementary School and High School
Junior High School Only
High School Only
Jointly Owned or Rented
2-Mile Accessibility Area to Each School
Bus Routes
Elementary and Junior High
Elementary and High School
Elementary and High School (Negro)
High School
Junior High and High School
Junior High School
2-Mile Accessibility Area to Bus Routes

FIGURE VI.—Location and accessibility of schools, 1932, Mercer County, W. Va.

differences may be partially accounted for by the fact that, as the distances increase, fewer of the younger children attend school.

Many children of school age in these counties are not attending school at all. (See table 23.) Taking into account only those

children who have at one time or another attended school, data were secured for a total of 1,630 out-of-school children 5 to 20 years of age. Of these, 1,503 were 13 years of age or older. Most of them had probably discontinued school. However, as will be seen in table 25, fewer than half of them had reached the seventh grade before leaving school; nearly a fourth had not gone beyond the fourth grade. Nearly one-third of all of these out-of-school children live 2 miles or more from school. In general the proportion of the out-of-school children living long distances from school is greater than that of those attending school. Many of the older out-of-school children living long distances from school are most likely not in school because there are no high-school facilities near their homes; others, as will be seen presently, have because of the long distances and other reasons, attended school so irregularly that retardation and lack of interest have resulted in their discontinuing school before reaching high school.

TABLE 23.—*Distance between home and school of out-of-school children: number and percent of children*

Distances by age group	Lumpkin County, Ga.		Wolfe County, Ky.		Macon County, Ky.		Monroe County, Tenn.		Mercer County, W. Va.		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13
Total younger than 9 years[1]	5	100.0	8	100.0	1	100.0	7	100.0	0	0	21	100.0
Less than 2 miles	5	100.0	6	75.0	0	0	4	57.1	0	0	15	71.4
2 to 4 miles	0	0	2	25.0	1	100.0	2	28.6	0	0	5	23.8
4 miles or more	0	0	0	0	0	0	1	14.3	0	0	1	4.8
Total 9 to 12 years of age	8	100.0	27	100.0	22	100.0	32	100.0	17	100.0	106	100.0
Less than 2 miles	6	75.0	20	74.1	8	36.4	17	53.1	12	70.6	63	59.4
2 to 4 miles	2	25.0	7	25.9	13	59.1	8	25.0	4	23.5	34	32.1
4 miles or more	0	0	0	0	1	4.5	7	21.9	1	5.9	9	8.5
Total 13 years of age or more	117	100.0	154	100.0	697	100.0	205	100.0	330	100.0	1,503	100.0
Less than 2 miles	80	68.4	114	74.0	409	58.7	161	78.5	251	76.0	1,015	67.5
2 to 4 miles	37	31.6	38	24.7	272	39.0	44	21.5	59	17.9	450	30.0
4 miles or more	0	0	2	1.3	16	2.3	0	0	20	6.1	38	2.5
All age groups	130	100.0	189	100.0	720	100.0	244	100.0	347	100.0	1,630	100.0
Less than 2 miles	91	70.0	140	74.1	417	57.9	182	74.6	263	75.8	1,093	67.1
2 to 4 miles	39	30.0	47	24.9	286	39.7	54	22.1	63	18.2	489	30.0
4 miles or more	0	0	2	1.0	17	2.4	8	3.3	21	6.0	48	2.9

[1] Children who have never attended school are omitted.

Relationship of school attendance to availability.—Distance from school probably influences the number of days per year and the total number of years children attend school as well as enrollment. Tables 24 and 25 concern, respectively, the actual number of days attended by the designated groups of 7,152 children in school and the grade levels reached by 1,604 out-of-school children at the time they left school. An examination of table 24 indicates approximately two-thirds of the sampling reported attended school 130 days or fewer; two in seven attended 50 days or fewer. The median days attended ranged from 90 in Wolfe County to 142 in Lumpkin County. Of the sampling of out-of-school children reported (table 25) all but 100 were 13 years of age or older. Of the latter, approximately one-half were in grades 3–6 when they last attended school; a few had been in grades 1–2 and the remainder had reached the seventh grade which probably was the highest grade offered in many of these mountain schools. Both the poor attendance and the fact that so many of the children fail to continue in school beyond the sixth grade suggest pointedly the effects of long distances and related influences.

TABLE 24.—*Number and percent of nontransported children attending school the number of days indicated during 1 year*

Number of days attended	Lumpkin County, Ga.		Wolfe County, Ky.		Macon County, N. C.		Monroe County, Tenn.		Mercer County, W. Va.		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13
30 or fewer	153	25.1	76	6.0	50	2.4	215	19.8	94	4.5	588	8.2
31–50	74	12.2	103	8.2	101	4.8	93	8.6	50	2.4	421	5.9
51–70	11	1.8	166	13.2	134	6.4	112	10.3	58	2.8	481	6.7
71–90	15	2.5	276	21.9	184	8.8	78	7.2	79	3.8	632	8.8
91–110	21	3.4	333	26.4	474	22.5	80	7.4	222	10.6	1,130	15.8
111–130	16	2.6	230	18.2	686	32.7	193	17.8	426	20.3	1,551	21.7
131–150	25	4.2	0	0	169	8.0	135	12.4	467	22.2	796	11.2
151–170	39	6.4	77	6.1	199	9.5	142	13.1	461	22.0	918	12.8
171 or more	255	41.8	0	0	104	4.9	37	3.4	239	11.4	635	8.9
Total	609	100.0	1,261	100.0	2,101	100.0	1,085	100.0	2,096	100.0	7,152	100.0
Median	142		90		113		101		135		114	

One recognizes the difficulties involved in providing adequate school facilities, elementary and secondary, to children living in remote isolated communities, especially when those resulting from sparsity of population are aggravated by the presence of mountain conditions and an inadequate economic basis of school support. A permanent solution probably involves fundamental reorganization of the system

of administration and support in addition to initiative on the part of officials responsible. While some of the difficulties inherent in the physical conditions indicated may be overcome by more immediate remedies such as adequate school funds and a more practical program of studies complete solution will doubtless await the reorganization indicated.

TABLE 25.—*Children of school age not attending school classified according to age groups and highest grade levels reached when last in school* [1]

Grade levels reached, by age group	Lumpkin County, Ga.		Wolfe County, Ky.		Macon County, N. C.		Monroe County, Tenn.		Mercer County, W. Va.		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Total, 8–12 years of age	8	100.0	27	100.0	22	100.0	26	100.0	17	100.0	100	100.0
1–2	5	62.5	14	51.8	16	72.7	19	73.1	10	58.8	64	64.0
3–4	1	12.5	10	37.0	5	22.7	4	15.4	3	17.6	23	23.0
5–6	1	12.5	3	11.2	1	4.6	3	11.5	3	17.6	11	11.0
7 or higher	1	12.5	0	0	0	0	0	0	1	6.0	2	2.0
Total, 13 years of age or more	117	100.0	154	100.0	697	100.0	205	100.0	331	100.0	1,504	100.0
1–2	13	11.1	5	3.2	23	3.3	17	8.3	6	1.8	64	4.3
3–4	37	31.6	46	29.8	118	16.9	44	21.5	36	10.9	281	18.7
5–6	37	31.6	31	20.2	230	33.0	66	32.2	104	31.4	468	31.1
7 or higher	30	25.7	72	46.8	326	46.8	78	38.0	185	55.9	691	45.9

[1] Data for 5 of the most mountainous counties. Children who had not begun school were omitted.

CHAPTER III

DENOMINATIONAL AND INDEPENDENT NONPUBLIC SCHOOLS

Introductory Statement

In many southern mountain communities where there are no public schools, or in which for many years there were none, missionary and other philanthropic organizations have established schools. Reliable data showing how many children and youth are attending such schools are not available. It is, however, well known that some of the outstanding successes in providing an education suited to the needs of these isolated groups must be credited to private and denominational schools. One has only to think of such well-known institutions as Berea College, of Berea, Ky.; the John C. Campbell Folk School, of Brasstown, N. C.; the Asheville Farm School, of Asheville, N. C.; the Berry Schools, of Rome, Ga. Two excellent studies [1] recently made of these nonpublic schools describe and evaluate their services.

Types of nonpublic schools.—According to the studies indicated, within the 205 counties constituting the mountain area included in this survey in 1932 there were 162 nonpublic schools. Of these, 143 furnished information on the levels and types of education provided. Fifty offered both elementary and secondary work and 44 elementary work only, a few of these extending through the junior high school grades. A total of 21 limited their program to the junior-senior or to the regular high-school grades. Fifteen others offered junior college work and 12 more offered a complete 4-year college program. One, the John C. Campbell Folk School, of Brasstown, N. C., rendered services to mountain youth without regard to the graded system of education. About 85 percent of these schools maintain dormitories. The majority, however, serve day pupils from nearby homes as well as boarding pupils. From the data showing the inaccessibility of schools in many of these mountain communities it may be concluded that the opportunity to live at the schools is an important service because it helps to overcome the ever-present distance factor.

[1] Dunn, Fannie W. Missionary and philanthropic schools. *In* Religion in the highlands, by Elizabeth Hooker, pp. 243-85, 300-16. New York, The Home Mission Council, 1933.

Waller, E. C. A survey of the church and independent schools and colleges of the southern Appalachians, Knoxville, Tenn. The Author, 1410 Magnolia Avenue, 1931.

These schools are for the most part located in the more undeveloped centers.[2] The median distance from a paved highway, for example, is more than 4 miles and the median distance to a large market or shopping center is nearly 20 miles. Seventy-nine percent of the schools are located in the smaller villages or in the open country. In 56 percent of the cases the nearest public elementary school is of the one- and two-teacher type.

As a rule, private schools were originally established in the poorer and more isolated sections. However, it is pointed out by Dr. Dunn[3] that at the present time the relationship between the location of nonpublic schools and the wealth of the communities is not always very close. The Blue Ridge sections of Tennessee, North Carolina, and Virginia, for example, have many of these schools, although the public-school systems, especially the high schools of the counties in which such schools are located, are often very much better developed than those of many of the mountain counties in Georgia, Kentucky, and the mining sections of West Virginia, which have few or none of the nonpublic schools. At the present time many counties in which missionary and philanthropic schools are located are better able to support public education than others in which no such schools are maintained.

It is, however, becoming more and more common for the private schools to discontinue all or part of their school programs as rapidly as public schools are made available to serve the needs of the mountain communities. There are a number of cases in which private school authorities deed their property to public-school authorities upon assurance that the property will be used for public-school purposes.

Cooperative relationships between these two types of schools are growing in frequency. In some cases the public-school system maintains the elementary grades and the private schools the high-school and college grades; in others the public maintains the school and the private school authorities provide dormitory and boarding facilities. Sometimes the missionary agencies maintain teacherages and thus secure the right to participate in selecting the teachers for the public schools. Many other types of cooperation are found. Such cooperation, undoubtedly, holds much promise for the future; though in some localities the presence of private schools actually tends to delay the proper development of the public-school program.

The purposes and functions of the nonpublic schools vary greatly, as would be expected from the number and types of agencies upon which the schools depend for support. The avowed purpose of many of them is to make available to ambitious but needy boys and

[2] Waller, E. C. A survey of mountain schools. Mountain life and work, vol. VII, January 1932.
[3] Op. cit. Religion in the highlands. Pp. 249–53.

girls of the more backward areas the advantages of a type of schooling which is either more advanced in character, superior in quality, or more closely adapted to the peculiar needs of the people than that provided at public expense.

Curricular offerings.—The programs of education most commonly found in nonpublic schools differ very little from those ordinarily found in public schools. On the whole their educational offerings are those established by convention and tradition. Dr. Dunn [4] summarized this situation in the missionary schools offering high-school work as follows:

> Every secondary school except the John C. Campbell Folk School and the Asheville Farm School offers a college-preparatory curriculum, but curricula in agriculture and in home economics are found in only 25 and 50 percent of the schools, respectively. Forty-three percent have not even one course in agriculture, and 24 percent none in home economics. On the other hand, 95 percent offer geometry and 95 percent algebra; 73 percent are giving 2 or more years to algebra. Two secondary schools actually offer trigonometry, while only four give economics or sociology, or both. Music is provided in 60 percent of the schools, but Latin is offered in 84 percent, 4 years of Latin being given in 13 percent of the schools. Offerings in science are fairly heavy, every school giving at least one course, while 18 percent offer 3, 4, or 5 years. History ranks next to English in number of courses offered, 3 years being the mode. Sixty percent of the schools offer from 2 to 4 years of a modern language, usually French, although in 9 percent of the schools Spanish is offered either with or without another language. In only one case is this other language German.

However, according to the study quoted, the nonpublic schools provide many activities, extracurricular and extraschool in character, which have a marked effect upon the educational and social welfare of the mountain communities served. The home life provided through boarding facilities has no doubt greatly improved the tone of living of the mountain people.

> The boarding home is indeed one of the soundest educational agencies of the missions. The home life provided by the school rather than the curriculum deserves most of the credit. * * * Contact in all the aspects of daily living with the amenities of life, as illustrated by the refined, cultured, and socially-minded teachers and house-mothers in many of the schools, is an additional educational factor unequalled in the day schools.[5]

A number of the nonpublic schools operate farms, dairies, laundries, and other industrial enterprises. Some schools are making an effort to develop and promote crafts which are either native to the community or have possibilities for raising the economic status of the

[4] Religion in the highlands. Op. cit., pp. 277–283.
[5] Ibid., pp. 280–281.

people. Most of the industrial enterprises have as one purpose the production of commodities needed in the immediate operation of the school. In a few cases they serve the community also. Earnings from such industries go into the maintenance of the schools. It is obvious that both the routine duties connected with running a school, home, and farm, as well as those connected with the other useful industries, have possibilities both in the educational growth of the children touched by them and in the improvement of the social and economic life of the people. The important thing is, of course, that the duties connected with such activities be rotated in keeping with

A church in the southern mountains.

sound educational principles and that the children be not overworked by the participation required of them.

Nonschool educational activities.—There are also maintained in the mountain communities a large number of nonschool educational services.[8] Usually these services are in the nature of community activities directly associated with the nonpublic schools. Sometimes, however, such services as hospitals, home nursing, libraries, agricultural and home extension activities, and other social welfare activities are provided at mountain outposts remote from the school

[8] Dr. Dunn made an effort to locate activities of this type by States and by counties. Religion in the Highlands. Op. cit. (See appendix.)

centers. In some centers Sunday schools and similar religious services are maintained in communities not included in the regular church organizations. The regular church program is, of course, also recognized as an important educational force. The presence or absence of well-developed church services is a subject too large to be even briefly reviewed here. This problem has been thoroughly studied and fully reported in other studies.[7]

In approximately a score of different communities some effort is made by philanthropic or missionary enterprise to stimulate activity in handcrafts.[8] These crafts are not only affording opportunity for artistic expression and cultural development in mountain communities but their products have in many cases become an important source of income. Considerable social work is being carried on in more than 60 localities through settlement houses and community centers maintained by private agencies. Such centers help to distribute and remodel clothing contributed for the needy. They serve as repositories for circulating libraries, provide health and first-aid services, serve as general meeting places for the social life of the communities in which they are located, and provide other services. In a number of localities they foster definite instruction in homemaking and in agriculture. Such services, so important to the more backward mountain homes, are promoted by philanthropic and missionary enterprise outside of the program commonly associated with the schools.

The Frontier Nursing Service [9] with headquarters at Hyden, Ky., is an example of this kind of service. Its major purpose is to prepare trained nurses and midwives for the mountain communities of Kentucky and the adjoining States where medical services are inadequate. This organization maintains hospitals, clinics, nursing centers, and midwifery schools where mountain people may not only obtain health services, but training adapted to the peculiar conditions and needs of the more isolated and destitute mountain homes.

---

[7] Hooker, Elizabeth. Religion in the Highlands, New York, The Home Mission Council, 1933. The church situation. *In* Economic and Social Problems and Conditions in the Southern Appalachians. Op. cit., pp. 168–82.

[8] Nienburg, Bertha M. Potential earning power of southern mountaineer handcrafts. Washington, Government Printing Office, 1935. (U. S. Department of Labor, Women's Bureau, No. 128.)

[9] Poole, Ernest. Nurses on horseback. New York, The Macmillan Co., 1932.

Wilford, M. B. Income and health in remote rural areas—A study of 400 families in Leslie County, Ky. Doctor's thesis, Columbia University, 1932.

Buck, Dorothy T. The frontier nursing service. Mountain Life and Work, vol. 9, January 1934.